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ABSTRACT

This handbook, designed for teachers of fourth through sixth grades, has two objectives: (1) to make the concept of critical thinking and the principles that underlie it clear; and (2) to show how critical thinking can be taught in language arts, social studies, and science. The introduction explains and justifies lesson plan remodelling. The first chapter, "Global Critical Thinking Strategies," combines the objective of clarifying critical thinking and suggesting general teaching strategies. The second chapter, "How to Use This Book," begins the remodelling thrust of the approaches used, and describes some of the most common problems found when examining texts for the intermediate grades. The third chapter, "Strategies," clarifies the idea of critical thinking further, and discusses how it can be taught by introducing and explaining the 28 specific teaching strategies at the heart of the remodelling process. The rest of the book contains examples of the use of the remodelling process on lessons, lesson fragments, and units, extracted from the teacher's editions of textbooks. Original lesson plans for selected texts are appended. An annotated bibliography of videotapes and a listing of audiotapes are provided. (MS) specific teaching

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Critical Thinking Handbook: 4th-6th Grades

The Thinker

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The Center conducts advanced research and disseminates information on critical thinking and moral critique. It has been working closely with the California State Department of Education, the College Board, numerous school districts, the Association for Supervision and Curriculum Development, the National Education Association, and the American Federation of Teachers to facilitate implementation of high standards of critical thinking instruction from kindergarten through the university.

It's major work involves:

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For further information, contact:
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CRITICAL THINKING HANDBOOK
4th-6th GRADES

A Guide for Remodelling Lesson Plans
in
Language Arts, Social Studies, & Science

by

Richard Paul, A.J.A. Binker, Karen Jensen
& Heidi Kreklau

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Preface

The Design of the Book

This Handbook has a two-fold goal and everything it contains can be seen as aiming at one or both of these objectives: 1) to clarify the concept of critical thinking and the principles that underlie it, and 2) to show how critical thinking can be taught. The second goal has two forms: a) presenting general strategies which can be used at any time to foster critical thinking, and b) demonstrating how lesson remodelling can help bring critical thinking into the heart of everyday classroom activities. Most sections of the book combine goals 1 and 2.

This preface, besides explaining the structure of the Handbook as a whole, introduces the reader to the concepts of critical thinking, and education for critical thinking. In the Introduction we explain and justify the lesson plan remodelling approach. This method of infusion is the main concern of this book. The chapter "Global Critical Thinking Strategies" combines the objectives of clarifying critical thinking and suggesting general teaching strategies. It does not directly address remodelling. The first section explains the necessity for strong sense critical thinking across the curriculum. The second section introduces the technique of Socratic discussion, first in general terms, then by illustration in a transcript of a Socratic discussion. The next section briefly introduces another general technique: role playing and reconstructing opposing views. The last two sections address the importance of maintaining a global emphasis on critical thinking traits and reasoned judgment.

The second chapter, "How to Use This Book," begins the remodelling thrust of our approach and describes some of the most common problems we found when examining 4-6 texts. The third chapter, "Strategies," clarifies the idea of critical thinking further, and suggests how it can be taught, by introducing and explaining the thirty-one specific teaching strategies at the heart of our remodelling process. The rest of the book contains examples of our use of the remodelling process on lessons, lesson fragments, and units, extracted from the teacher's editions of textbooks. For reference and use in staff development, we have reprinted some of the original lessons in an appendix. We introduce each subject area with a general discussion of a critical approach to the subject, and brief criticisms of texts.

Our Concept of Critical Thinking

The term 'critical,' as we use it, does not mean thinking which is negative or finds fault, but rather thinking which evaluates reasons, and brings thought and action in line with our evaluations, our best sense of what is true. The ideal of the critical thinker could be roughly expressed in the phrase 'reasonable person.' Our use of the term 'critical' is intended to highlight the intellectual autonomy of the critical thinker. That is, as a critical thinker, I do not simply accept conclusions (uncritically). I evaluate or critique reasons. My critique enables me to reject poor reasoning, and accept strong reasoning. To do so to the greatest extent possible, I make use of a number of identifiable and learnable skills. I discount reasons and evidence irrelevant to the conclusion; make assumptions explicit and evaluate them; reject unwarranted inferences, or 'leaps of logic;' use the best and most complete evidence available to me; make relevant distinctions, clarify; avoid inconsistency and contradiction; reconcile apparent contradictions; and distinguish what I know from what I merely suspect to be true.

The uncritical thinker, on the other hand, doesn't reflect on or evaluate reasons for his beliefs, he simply agrees or disagrees, accepts or rejects conclusions, often without understanding them, and often on the basis of egocentric attachment or unassessed desire. Lacking skills to analyze and evaluate, he allows irrelevant reasons to affect his conclusions; doesn't notice assumptions, and therefore fails to evaluate them; accepts any inference that "sounds good;" is unconcerned with the certainty and completeness of evidence; can't sort out ideas, confuses different concepts, is an unclear thinker; is oblivious to contradictions; feels certain, even when not in a position to know. The classic uncritical thinker says, "I've made up my mind! Don't confuse me with facts." Yet, critical thinking is more than evaluation of simple lines of thought.

As I evaluate beliefs, by evaluating the evidence or reasoning that supports them (that is, the 'arguments' for them), I notice certain things. I learn that sometimes I must go beyond evaluating small lines of reasoning; that to understand an issue, I may have to think about it for a long time, and weigh many reasons and clarify basic ideas. I see that evaluating a particular line of thought often forces me to re-evaluate another. A conclusion about one case forces me to come to a certain conclusion about another. I find that often my evaluation of someone's thinking turns on the meaning of a concept, which I must clarify. Such clarification affects my understanding of other issues. I notice previously hidden relationships between beliefs about different issues. I see that some beliefs and ideas are more fundamental than others. In short, I must orchestrate the skills I have learned into a longer series of moves. As I strive for consistency and understanding, I discover opposing sets of basic assumptions which underlie those conclusions. I find that, to make my beliefs reasonable, I must evaluate, not individual beliefs, but rather, large sets of beliefs. Analysis of an issue requires more work, a more extended process, than that required for a short line of reasoning. I must learn to use my skills, not in separate little moves, but together, coordinated into a long sequence of thought.

Sometimes, two apparently equally strong arguments or lines of reasoning about the same issue come to contradictory conclusions. That is, when I listen to one side, the case seems strong. Yet when I listen to the other side, that case seems equally strong. Since they contradict each other, they cannot both be right. Sometimes it seems that the two sides are talking about different situations, or speaking different languages, even living in different 'worlds.' I find that the skills which enable me to evaluate a short bit of reasoning do not offer much help here.

Suppose I decide to question two people who hold contradictory conclusions on an issue. They may use concepts or terms differently; disagree about what terms apply to what situations, and what inferences can then be made, or state the issue differently. I may find that the differences in their conclusions rest, not so much on a particular piece of evidence, or on one inference, as much as on vastly different perspectives; different ways of seeing the world, or different conceptions of such basic ideas as, say, human nature. As their conclusions arise from different perspectives, each, to the other, seems deluded, prejudiced, or naive. How am I to decide who is right? My evaluations of their inferences, uses of terms, evidence, etc., also depend on perspective. In a sense, I discover that *I* have a perspective.

I could simply agree with the one whose overall perspective is most like my own. But how do I know I'm right? If I'm sincerely interested in evaluating beliefs, should I not also consider things from other perspectives?

As I reflect on this discovery, I may also realize that my perspective has changed. Perhaps I recall learning a new idea or even system of thought that changed the way I see myself and the world around me in fundamental ways, which even changed my life. I remember how pervasive this change was. I began to interpret a whole range of situations differently, continually used a new idea, concept or phrase, paid attention to previously ignored facts. I realize that I now have a new choice regarding the issue under scrutiny.

I could simply accept the view that most closely resembles my own. But, thinking further I realize that I cannot reasonably reject the other perspective unless I understand it. To do so would be to say: I don't know what you think, but, whatever it is, its's false. The other perspective, however strange it seems to me now, may have something both important and true, which I have overlooked and without which my understanding is incomplete. Thinking along these lines, I open my mind to the possibility of change of perspective. I make sure that I don't subtly ignore or dismiss these new ideas; I realize I can make my point of view richer, so it encompasses more.

One of the most important stages in my development as a thinker, then, is a clear recognition that I have a perspective, one that I must work on and change as I learn and grow. To do this, I can't be inflexibly attached to any particular beliefs. I strive for a consistent 'big picture.' I approach other perspectives differently. I ask how I can reconcile the points of view. I see variations between similar but different perspectives. I use principles and insights flexibly, and do not approach analysis as a mechanical, 'step one, step two' process. I pursue new ideas in depth, trying to understand the perspectives from which they come. I am willing to say, "This view sounds new and different, I don't yet understand it. There's more to this idea than I realized, I can't just dismiss it."

Or, looked at another way, suppose I'm rethinking my stand on an issue. I re-examine my evidence. Yet, I cannot evaluate my evidence for its completeness, unless I consider evidence cited by those who disagree with me. I find I can discover my basic assumptions by considering alternative assumptions, alternative perspectives. I use fairmindedness, or 'reciprocity' to clarify, enhance, and improve my perspective.

A narrow minded critical thinker, lacking this insight, says, not, "This is how *I* see it," but, "This is how it *is*." He works on pieces of reasoning, separate arguments, and individual beliefs, but not on his perspective as such. His thinking consists of separate or fragmented ideas. He examines beliefs one at a time, failing to appreciate connections between them. He may be conscious and reflective about particular conclusions, but is unreflective about his own point of view, how it affects his evaluations of reasoning, and how it is limited. When confronted with alternative perspectives or points of view, he assesses them by their degree of agreement with his own view. He lumps together similar, though different perspectives. He is given to sweeping acceptance or sweeping rejection of points of view. He is tyrannized by the words he uses. Rather than trying to understand *why* another thinks as she does, he dismisses new ideas. He assumes the objectivity and correctness of his own beliefs and responses.

As I strive to think fairmindedly, I discover resistance to questioning my beliefs and considering those of others. I find a conflict between my desire to be fairminded, and my desire to be right. I realize that without directly addressing the obstacles to critical thought, I tend to seek its appearance, rather than its reality, that I tend to accept rhetoric rather than fact, that without noticing it, I hide my own hypocrisy, even from myself.

By contrast, the critical thinker who lacks this insight, though a good arguer, is not a truly reasonable person. He gives good sounding reasons, can find and explain flaws in opposing views, and has well thought out ideas, but he never subjects his own ideas to scrutiny. Though he gives lip service to fairmindedness, and can describe views opposed to his own, he doesn't truly understand, or seriously consider them. He often uses reasoning to get his way, cover up hidden motives, defend himself, or make others look stupid or deluded. He uses skills to reinforce his views and desires, not to subject them to scrutiny.

To sum up, the kind of critical thinker we want to foster contrasts with at least two other kinds of thinkers. The first kind has few intellectual skills of any kind and tends to be naive, easily manipulated and controlled, and so easily 'defeated' or 'taken in.' The second has skills but only of a restricted type; able to pursue his narrow selfish interests and to effectively manipulate the naive and unsuspecting. The first we call 'uncritical thinkers' and the second 'weak sense' or selfish critical thinkers. What we aim at, therefore, are 'strong sense' critical thinkers, those who use their skills in the service of sincere, fairminded understanding and evaluation of their beliefs.

Critical Thinking and Education

The foundation for fairminded as against self-serving critical thinking, is laid in the early years of one's life. The same is true of uncritical thought. We can raise children from the earliest years to passively accept authority figures and symbols. We can systematically manipulate and inculcate children so they are apt to become adults highly susceptible to manipulation.

Or we can foster the development of intellectual skills while ignoring the ultimate use to which the learner puts them. We can ignore the problems of egocentrism, the natural tendencies of the mind toward self-deception and ego-justification. We can assume that students will use those skills fairmindedly. In this case we ignore the problem of integrating cognitive and affective life. And so we make it likely that our more successful students will become intelligent manipulators rather than fairminded thinkers. They will gain intellectual empowerment at the expense of a selfish use of that power to further egocentric ends.

But there is a legitimate third option on which we should focus our efforts: fostering the development of intellectual skills in the context of rational dispositions and higher critical thinking values. We can emphasize the intimate interplay of thought and feeling, not set them off as separate or oppositional. We can recognize the existence of both rational and irrational passions and cognitions. We can accentuate the insight that only through the development of rational passions can we prevent our intelligence from becoming the tool of egocentric emotions.

The earlier we lay the foundation for intellectual fairness, the better our chance for success. If we want children to develop into adults with a passion for clarity, accuracy, and fairmindedness, a fervor for exploring the deepest issues, a propensity for listening sympathetically to opposition points of view; if we want children to develop into adults with a drive to seek out evidence, with an aversion to contradiction, sloppy thinking, and inconsistent applications of standards; then we had better pay close attention to the affective dimension of their lives from the beginning. We had better recognize the need to unite cognitive and affective goals.

The highest development of intelligence and conscience creates a natural marriage between the two. Each is distinctly limited without the other. Each requires special attention in the light of the other.

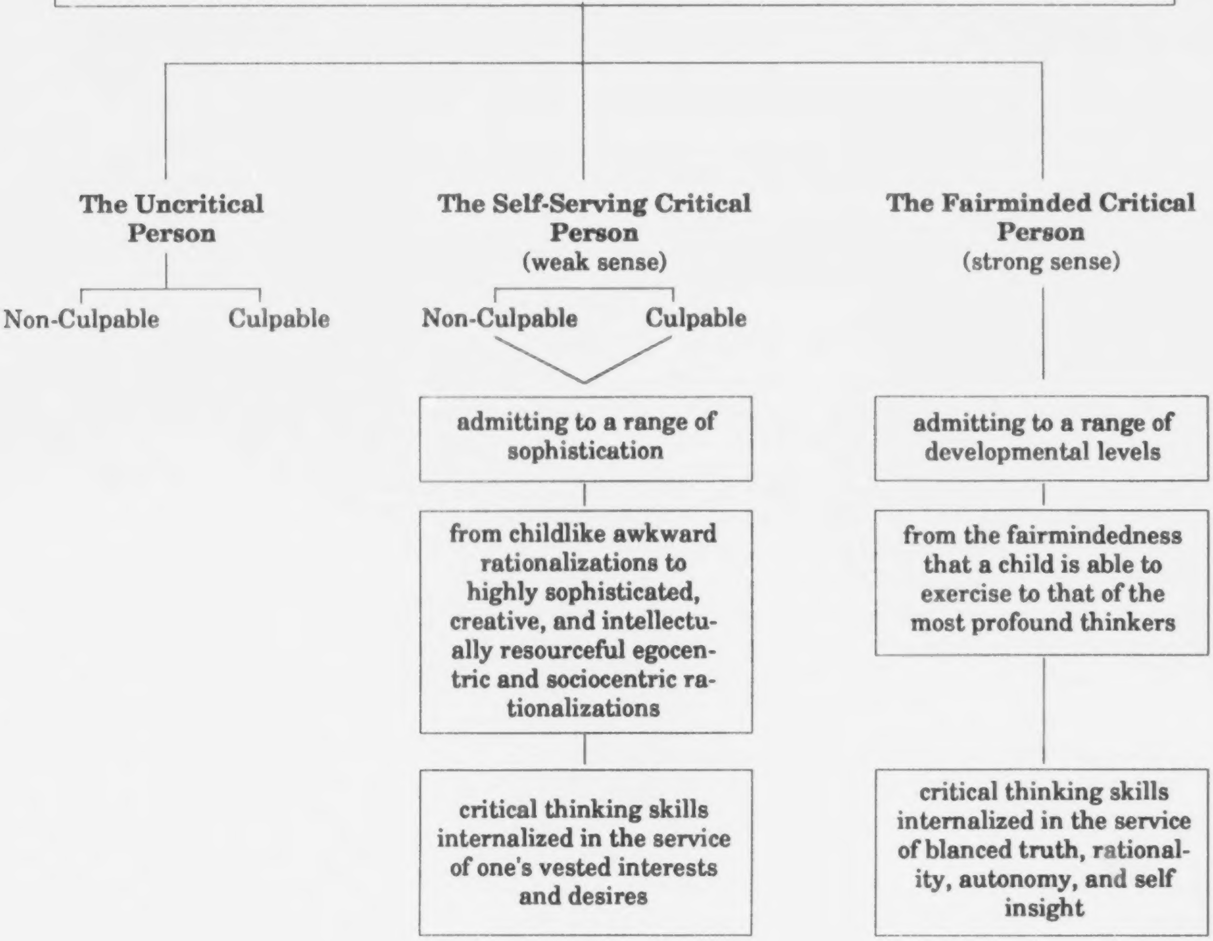
In this workbook we provide something more than a set of remodelled lessons which accentuate needed intellectual skills. We have tried to keep in mind our vision of the conscientious, fairminded, critical person. Many of the strategies for remodel that we use explicitly call for a blending of the skills of critical thinking with the dispositions that foster critical thinking values. All of the strategies have been used with this overall end in mind.

The remodel strategies should be viewed, therefore, not as isolated intellectual activities, but as insight builders that mutually support each other and work toward a unified end. Wherever possible there is a cognitive/ affective integration.

Diagram 1

Three Modes of Mental Organization

(expressed in exclusive categories for purposes of theoretical clarity)

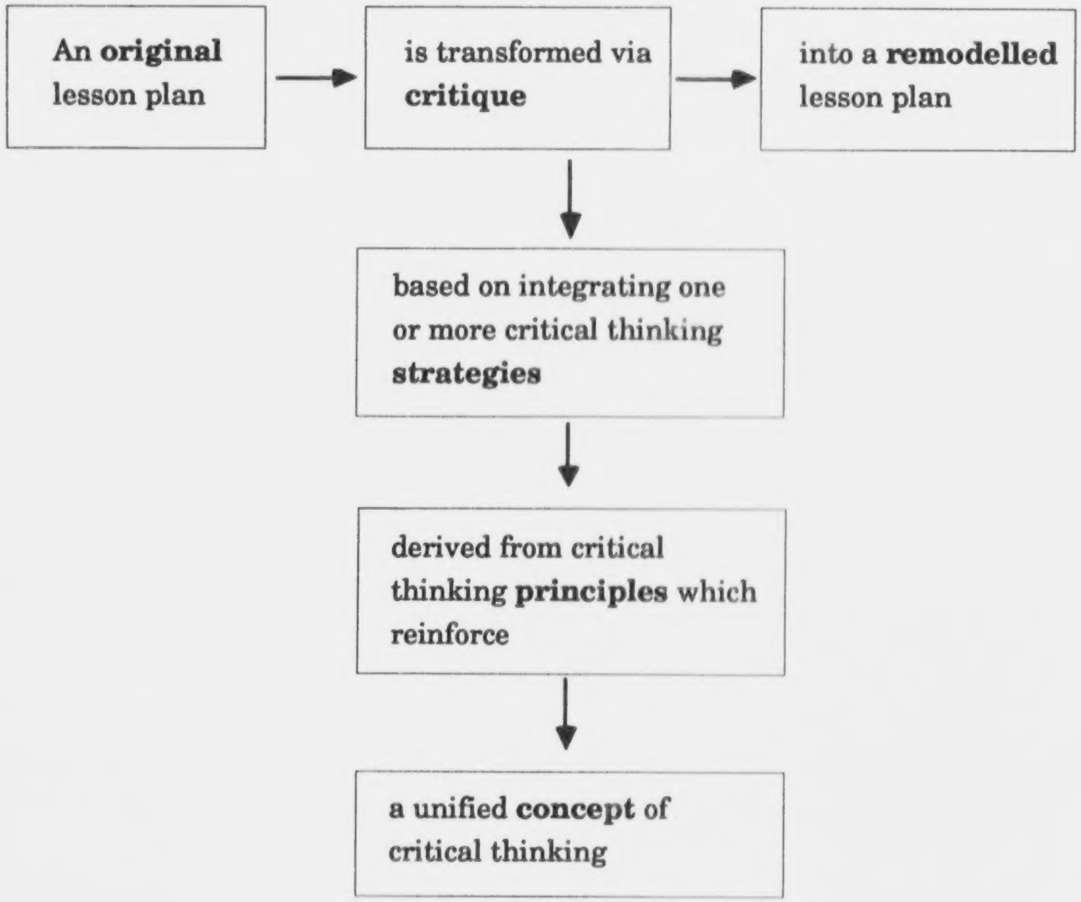

The Uncritical Person
Non-Culpable
Culpable
The Self-Serving Critical Person
(weak sense)
Non-Culpable
Culpable
admitting to a range of sophistication
from childlike awkward rationalizations to highly sophisticated, creative, and intellectually resourceful egocentric and sociocentric rationalizations
critical thinking skills internalized in the service of one's vested interests and desires
The Fairminded Critical Person
(strong sense)
admitting to a range of developmental levels
from the fairmindedness that a child is able to exercise to that of the most profound thinkers
critical thinking skills internalized in the service of blanced truth, rationality, autonomy, and self insight

Note

Children enter school as fundamentally non-culpable uncritical and self-serving thinkers. The educational task is to help them to become, as soon as possible and as fully as possible, responsible, fairminded, critical thinkers, empowered by intellectual skills and rational passions. Most people are some combination of the above three types; the proportions are the significant determinant of which of the three characterizations is most appropriate. For example, it is a common pattern for people to be capable of fairminded critical thinking only when their vested interests or ego-attachments are not involved, hence the legal practice of excluding judges or jury members who can be shown to have such interests.

Diagram 2

Critical Thinking Lesson Plan Remodelling


An **original** lesson plan
is transformed via **critique**
into a **remodelled** lesson plan
based on integrating one or more critical thinking **strategies**
derived from critical thinking **principles** which reinforce
a unified **concept** of critical thinking

1

Introduction

The basic idea behind lesson plan remodelling as a strategy for staff development in critical thinking is simple. Every practicing teacher works daily with lesson plans of one kind or another. To remodel lesson plans is to critique one or more lesson plans and formulate one or more new lesson plans based on that critical process. It is well done when the remodeller understands the strategies and principles used in producing the critique and remodel, when the strategies are well thought-out, when the remodel clearly follows from the critique, and when the remodel teaches critical thought better than the original. The idea behind our particular approach to staff development of lesson plan remodelling is also simple. A group of teachers or staff development leader who has a reasonable number of exemplary remodels with accompanying explanatory principles can design practice sessions that enable teachers to begin to develop new teaching skills as a result of experience in lesson remodelling.

When teachers are provided with clearly contrasting 'befores' and 'afters,' lucid and specific critiques, a set of principles clearly explained and illustrated, and a coherent unifying concept, they can increase their own skills in this process. To put this another way, one learns how to remodel lesson plans to incorporate critical thinking only through practice. The more one does it the better one gets, especially when one has examples of the process to serve as models.

Of course, a lesson remodelling strategy for critical thinking inservice is not tied to any particular handbook of examples, but it is easy to indicate the advantages of having such a handbook, assuming it is well executed. Some teachers do not have a clear concept of critical thinking. Some think of it as negative, judgmental thinking, which is a stereotype. Some have only a vague notions, such as 'good thinking,' or 'logical thinking,' with little sense of how such ideals are achieved. Others think of it simply in terms of a laundry list of atomistic skills and so lack a clear sense of how these skills need to be orchestrated or integrated or of how they can be misused. Rarely do teachers have a clear sense of the relationship between the component micro-skills, the basic, general concept of critical thinking, and the obstacles to using it fully.

It is theoretically possible, but practically speaking unlikely, that teachers will sort this out for themselves as a task in abstract theorizing. In the first place most teachers have very little patience with abstract theory and little experience in developing it. In the second place, few school districts could give them the time to take on this task, even if they were qualified and motivated enough themselves. But getting the basic concept sorted out is not the only problem. There is also the problem of translating that concept into 'principles,' linking the 'principles' to applications, and implementing them in specific lessons.

On the other hand, if we simply present the teacher with pre-packaged finished lesson plans designed by the critical thinking of someone else, by a process unclear to the teacher, then we have lost a major opportunity for the teacher to develop her own critical thinking skills, insights, and motivations. Furthermore, a teacher who cannot use basic critical thinking principles to critique and remodel some of her own lesson plans probably won't be able to implement someone else's effectively. Providing teachers with the scaffolding for carrying out the process for themselves and examples of its use, opens the door for continuing development of critical thinking skills and insights. It begins a process which gives the teacher more and more expertise and more and more success in critiquing and remodelling the day-to-day practice of teaching.

Lesson plan remodelling can become a powerful tool in critical thinking staff development for other reasons as well. It is action oriented and puts an immediate emphasis on close examination and critical assessment of what is taught on a day-to-day basis. It makes the problem of critical thinking infusion more manageable by paring it down to the critique of particular lesson plans and the progressive infusion of particular principles. It is developmental in that, over time, more and more lesson plans are remodelled, and what has been remodelled can be remodelled again. It provides a means of cooperative learning for teachers. Its results can be collected and shared, both at the site and district levels, so that teachers can learn from and be encouraged by what other teachers do. The dissemination of plausible remodels provides recognition for motivated teachers. It forges a unity between staff development, curriculum development, and student development. It provides a simple demonstrable refutation of the contradictory, but equally popular, crude excuses that 1) every good teacher naturally teaches critical thinking, and that 2) it is too hard to teach because students aren't ready for it. It avoids recipe solutions to critical thinking instruction. And, finally, properly conceptualized and implemented, it unites cognitive and affective goals as well as integrating the curriculum.

Of course it is no panacea. It will not work for those who are deeply complacent or cynical or for those who do not put a high value on students' learning to think for themselves. It will not work for those who have a low command of critical thinking skills coupled with low self-esteem. It will not work for those who are 'burned out' or have given up on change. Finally, it will not work for those who want a quick and easy solution based on recipes and formulas. It is a long-term solution that transforms teaching by degrees as the critical thinking insights and skills of the teachers develop and mature. If teachers can develop the art of critiquing the lesson plans they use, and learn how to use that critique to remodel those lesson plans more and more effectively, they will progressively 1) refine and develop their own critical thinking skills and insights, 2) reshape the actual or 'living' curriculum (what is in fact taught), and 3) develop their teaching skills. (See diagram #2.)

The Center For Critical Thinking Approach

The approach to lesson remodelling developed by the Center for Critical Thinking and Moral Critique is based on the publication of Handbooks, such as this one, which illustrate the remodelling process, unifying well though-out critical thinking theory with practical application. The goal is to explain critical thinking by translating general theory into specific teaching strategies. The strategies are multiple, allowing 'novice' critical thinkers to begin with more elementary strategies, while more 'advanced' critical thinkers can use more complex strategies. This is especially important since the skill at and insight into critical thought vary.

This approach, it should be noted, respects the autonomy and professionality of the teacher. He chooses which strategies to use in a particular situation, and controls the rate and style of integration. It is a flexible approach, maximizing the decision-making and thinking of the teacher. The teacher can apply the strategies to any kind of material: text lesson, lessons or units the teacher has created, discussion outside of formal lessons, discussion of movies, etc.

Teaching For Critical Thinking

In teaching for critical thinking in the strong sense, we are committed to teaching in such a way that children, as soon and as completely as possible, learn to become responsible for their own thinking. This requires that they learn how to take command of their thinking, which in turn requires that they learn how to notice and think about their own thinking, as well as the thinking of others. Consequently, we teach so as to help children to talk about their thinking in order to be mindful and directive in it. We want them to study their own minds and how they operate. We want them to gain tools by which they can probe deeply into and take command of their own mental processes. Finally, we want them to gain this mentally skilled self-control with a view to becoming more honest with themselves and more fair to others, not simply to 'do better' in school. We want them to develop mental skills and processes in an ethically responsible context. This is not a "good-boy/bad-boy" approach to thinking, for everyone must think his own way to the ethical insights that underlie becoming a fairminded thinker. We are careful not to judge the content of the student's thinking. Rather, we facilitate a process whereby the student's own insights can be developed.

The global objectives of critical thinking-based instruction are intimately linked to specific instrumental objectives. It is precisely because we want students to learn how to think for themselves in an ethically responsible way that we use the strategies we do; why we help them to gain insight into their tendency to think in narrowly self-serving ways (egocentricity); why we stimulate them to empathize with the perspectives of others; to suspend or withhold judgment when they do not have the evidence to justify making a judgment; to clarify issues and ideas, to evaluate sources, solutions, and actions; to notice when they make assumptions, how they make inferences and where they use, or ought to use, evidence; why we stimulate them to consider the implications of their ideas, the possible contradictions or inconsistencies in their thinking, the qualifications or lack of qualifications in their generalizations; and why we do all of these things in encouraging, supportive, non-judgmental ways.

To help teachers generalize from specific remodelling moves, and so facilitate their grasp of strong sense critical thinking and how it can be taught, we have devised a list of teaching strategies. Each strategy highlights an aspect of critical thought. Each use illustrates how that aspect can be encouraged in students. In the chapter, "Strategies," we explain the thirty-one strategies illustrated in the remodels. Each is linked to the idea of strong sense critical thinking, in the 'principle.' And for each we explain some ways the aspect of critical thought can be encouraged, in the 'application.' When a strategy is used in a remodel, we have drawn attention to it by putting its strategy symbol in the remodel, e.g., ***"S-13."***

To make the list more manageable, we have divided the strategies into three types: those which emphasize the affective side of critical thought, Affective Strategies, promoting autonomy, empathy, and understanding of obstacles to critical thought; those which generally require extended use of cognitive skills, Cognitive-Macro-abilities, emphasizing extended exploration of ideas, perspectives, and basic issues; and those which highlight a specific, usually brief, critical move, Cognitive-Micro-skills. These divisions are not absolute, however. Critical thought requires integration of the affective and cognitive dimensions of thinking. Macro-abilities usually require use of micro-skills. And micro-skills are pointless unless used to some end.

A. Affective Strategies

S-1	exercising independent thought
S-2	developing insight into ego/sociocentricity
S-3	exercising fairmindedness/reciprocity
S-4	exploring thoughts underlying feelings
S-5	suspending judgment

B. Cognitive Strategies - Macro-Abilities

S-6	avoiding oversimplification
S-7	transferring ideas to new contexts
S-8	developing one's perspective
S-9	clarifying issues and claims
S-10	clarifying ideas
S-11	developing criteria for evaluation
S-12	evaluating source credibility
S-13	raising and pursuing root questions
S-14	evaluating arguments
S-15	generating or assessing solutions
S-16	evaluating actions and policies
S-17	clarifying or critiquing text
S-18	making interdisciplinary connections
S-19	engaging in Socratic discussion
S-20	practicing dialogical thinking
S-21	practicing dialectical thinking

C. Cognitive Strategies - Micro-Skills

S-22	distinguishing facts from ideals
S-23	using critical vocabulary
S-24	distinguishing ideas
S-25	examining assumptions
S-26	distinguishing relevant from irrelevant facts
S-27	making plausible inferences
S-28	supplying evidence for a conclusion
S-29	recognizing contradictions
S-30	exploring implications and consequences
S-31	refining generalizations

Some Staff Development Design Possibilities

Let us now consider how we can incorporate these general understandings into inservice design. There are five basic goals, or, if you like, five basic understandings that we need to aim for help teachers learn the art of lesson remodelling. Each can be the focus of some stage of inservice activity:

1) **Clarifying the global concept**
   What is it to think critically? How is the fairminded critical thinker unlike the self-serving critical thinker and the uncritical thinker?

2) **Understanding component teaching strategies that parallel the component critical thinking values, processes and skills**
   What are the basic values that (strong sense) critical thinking presupposes? What are the micro-skills of critical thinking? What are the macro-processes?

3) **Seeing a variety of ways in which the various component strategies can be used in classroom settings**
   What do critical thinkers do? Why? What do they avoid doing? Why? When can each aspect of critical thought be fostered? What questions or activities foster it?

4) **Getting experience in lesson plan critique**
   What are the strengths and weaknesses of this lesson? What critical principles, concepts, or strategies apply to it? What important ideas underlie this lesson? Are they adequately emphasized and explained?

5) **Getting experience in lesson plan remodelling**
   How can I take full advantage of the strengths of this lesson? How can this material best be used to foster critical insights? Which questions or activities should I drop, use, alter or expand upon? What should I add to it? How can I best promote genuine and deep understanding of this material?

Let us emphasize at the outset that these goals or understandings are interrelated and that the achievement of any, or all, of them is a matter of degree. We would therefore recommend against trying to achieve 'complete' understanding of any one of these in some absolute sense, before proceeding to the others. Furthermore, we emphasize that understanding in each case should be viewed practically or pragmatically. One does not learn about what critical thinking is by memorizing a definition or a set of distinctions. The teacher's mind must be actively engaged at each point in the process — concepts, principles, applications, critiques, and remodels. At all of these levels, 'hands-on' activities should immediately follow any introduction of explanatory or illustrative material. If, for example, teachers are shown a handbook formulation of one of the principles, they should then have an opportunity to brainstorm applications of the principle, or an opportunity to try out their own formulations of another principle. When they are shown the critique of one lesson plan, they should be given an opportunity to remodel it or critique another. If they are shown a complete remodel — original lesson plan, critique, and remodel — they should be given an opportunity to do a full critique of their own, individually or in groups. This back and forth movement between example and practice should characterize the staff development process overall. These practice sessions should not be rushed, and the products of that practice should be collected and shared in some form with the group as a whole. Teachers need to see that they are fruitfully engaged in this process; dissemination of the products of the process demonstrates this fruitfulness. Of course, it ought to be a common understanding of staff development participants that initial practice is not the same as final product, that what is remodelled today by critical thought can be re-remodelled tomorrow and improved progressively thereafter as experience, skills, and insights grow.

In any case, be careful not to spend too much time on the general formulations of what critical thinking is, before moving to the level of particular principles and strategies. The reason for this is simple. People tend to have trouble assimilating general concepts unless they are clarified through concrete examples. Furthermore, we want teachers to develop an *operational* view of critical thinking, to understand it as particular intellectual behaviors derivative of basic insights, commitments, and principles. Critical thinking is not a set of high sounding platitudes, but a very real and practical way to think things out and to act upon that thought. Therefore, we want teachers to make realistic translations from the general to the specific as soon as possible. Most importantly, we want teachers to see how acceptance of the general concept of critical thinking translates into clear and implementable critical thinking teaching and learning strategies.

For this reason, all the various strategies explained in the handbook are couched in terms of behaviors. The principles express and describe a variety of behaviors of the 'ideal' critical thinker; they become applications to lessons when teachers canvass their lesson plans to find appropriate places where those behaviors can be fostered. The practice we recommend helps guard against teachers using these strategies as recipes or formulas, since in each case good judgment is required in the application process.

The process we have described thus far presupposes motivation on the part of the teacher to implement changes. Unfortunately we cannot presuppose this motivation. We must address it directly. This can be done by focussing attention on the insights that underlie the strategies in each case. We need to foster discussion of them so that it becomes clear to teachers not only *that* critical thinking requires this or that kind of activity but *why*, that is, what desirable consequences it brings about. If, for example, teachers do not see why thinking for themselves is of high importance for the well-being and success of their students, they will not take the trouble to implement activities that foster it, even if they know what these activities are.

To meet this motivational need, we have formulated 'principles' so as to suggest important insights. For example, consider the brief introduction which is provided in the strategy chapter for the strategy "exercising fairmindedness/reciprocity:"

Principle: To think critically about issues we must be able to consider the strengths and weaknesses of opposing points of view. Since critical thinkers value fairmin- dedness, and recognize their tendency to be unfairminded, they feel that it is especially important that they entertain positions with which they disagree. They realize the unfairness of judging the ideas of another until they fully understand them. The process of considering an opposing point of view aids critical thinkers in recognizing the logical components of their beliefs, (e.g. key concepts, assumptions, implications, etc.) and puts them in a better position to amend those beliefs.

Furthermore, critical thinkers recognize that their behavior affects others, and so consider their behavior from the perspective of those others.

If teachers reflect on this principle in the light of their own experience, they should be able to come up with their own reasons why reciprocity is important. They might reflect upon the personal problems and frustrations they faced when others —spouses or friends, for example — did not or would not empathically enter their point of view. Or they might reflect on their frustration as children when their parents, siblings, or schoolmates did not take their point of view seriously. Through examples of this sort, constructed by the teachers themselves, insight into the need for reciprocity can be developed.

Once the insight is in place, we are ready to put the emphasis on discussing the variety of ways that students can practice reciprocity. As always, we want to be quite specific here, so that teachers understand the kinds of behaviors they are fostering. The Handbook, in each case, provides a start in the application section following the principle. For further examples, one can look up one or more remodelled lesson plans in which the strategy was used. For example, fourteen examples of remodels are referenced under 'fostering reciprocity.' Remember, it is more important for teachers to think up their own examples and applications than to rely on the Handbook examples, which are intended as illustrative only.

Lesson plan remodelling as a strategy for staff and curriculum development is not a simple one-shot approach. It requires patience and commitment. But it genuinely develops the critical thinking of teachers and puts them in a position to understand and help structure the inner workings of the curriculum. While doing so, it builds confidence, self-respect, and professionality. With such an approach, enthusiasm for critical thinking strategies will grow over time. It is an approach worth serious consideration as the fundamental thrust of a staff development program. If a staff becomes proficient at critiquing and remodelling lesson plans, it can, by redirecting the focus of its energy, critique and 'remodel' any other aspect of school life and activity. In this way the staff can become increasingly less dependent on direction or supervision from above and increasingly more activated by self-direction from within. Responsible, constructive critical thinking, developed through lesson plan remodelling, is a vehicle for this transformation.

Get experience in lesson plan critique: What are the strengths and weaknesses of this lesson? What critical principles, concepts, or strategies apply to it?

One cannot develop one's fairmindedness, for example, without actually thinking fairmindedly. One cannot develop one's intellectual independence, without actually thinking independently. This is true of all the essential critical thinking traits, values, or dispositions. They are developmentally embedded in thinking itself.

2

Global Critical Thinking Strategies: Beyond Compartmentalized Subject Matter Teaching

I. The Role of the Teacher

A teacher committed to teaching for critical thinking must think beyond subject matter teaching to ends and objectives that transcend subject matter classification. To teach for critical thinking is, first of all, to create an environment in the class and in the school that is conducive to critical thinking. It is to help make the classroom and school environment a mini-critical society, a place where the values of critical thinking (truth, open-mindedness, empathy, autonomy, rationality and self-criticism) are encouraged and rewarded. In such an environment, students come to believe in the power of their own minds to identify and solve problems. They come to believe in the efficacy of their own thinking. Thinking for themselves is not something they fear. Authorities are not those who tell them the "right" answers, but those who encourage and help them to figure out answers for themselves, who encourage them to discover the powerful resources of their own minds.

The teacher is much more a questioner than a preacher on this model. The teacher learns how to ask questions that probe meanings, that request reasons and evidence, that facilitate elaboration, that keep discussions from becoming unhelpfully confusing, that provide incentive for listening to what others have to say, that lead to fruitful comparisons and contrasts, that highlight contradictions and inconsistencies, and that elicit implications and consequences.

The teacher committed to critical thinking realizes that the primary purpose of all education is to teach students how to learn. Since there are more details than can be taught, and no way to predict which the student will use, she emphasizes thinking about basic issues and problems. Thus, details are learned as a necessary part of the process of settling such questions, and so are functional and relevant. The teacher who teaches students how to learn and think about many basic issues gives them knowledge they can use the rest of their lives.

This teacher realizes that subject matter divisions are arbitrary and a matter of convenience. She realizes that the most important problems of everyday life rarely fall neatly into subject matter divisions;

that understanding a situation fully usually requires a synthesis of knowledge and insight from several subjects. She also sees that an in-depth understanding of one subject requires an understanding of others. (One cannot answer questions in history, for example, without asking and answering related questions in psychology, sociology, etc.) She realizes that the students must discover the value of "knowledge" "evidence," and "reasoning" by finding significant payoffs in dealing outside of school with their own everyday life problems. She realizes the universal problems we all face, and that each should find personal solutions through their self-reflective experience and thought processes:

> Who am I? What is the world really like? What are my parents, my friends, and other people like? How have I become the way I am? What should I believe in? Why should I believe in it? What real options do I have? Who are my real friends? Whom should I trust? Who are my enemies? Need they be my enemies? How did the world become the way it is? How do people become the way they are? Are there any really bad people in the world? Are there any really good people in the world? What is good and bad? What is right and wrong? How should I decide? How can I decide what is fair and what is unfair? How can I be fair to others? Do I have to be fair to my enemies? How should I live my life? What rights do I have? What responsibilities?

The teacher who believes in personal freedom and thinking for yourself does not spoon- feed her students with pre-digested answers to those questions. Nor does she encourage students to believe that

the answers to them are arbitrary and a matter of sheer opinion. She raises probing questions whenever they are natural to a subject under discussion. She realizes that as a student thinks his way to answers, he forges an over-all perspective into which subject matter discoveries will be fit. She does not force the discussion, nor attempt to force a student to conclusions that do not seem to the student to follow.

The teacher committed to teaching for critical thinking realizes that the child has two sources of "belief:" beliefs that the child forms as a result of her personal experience, inward thinking, and interaction with her peers and environment, and beliefs that the child learns through instruction by adults. The first could be called real or operational beliefs. They are what define the child's real world, the foundation for her action, the source of her acted-upon values. They are a result of the child making sense of or figuring out the world. They are heavily influenced by what has been called pleasure-principle thinking. They are in large measure egocentric, unreflective, and unarticulated.

The child (and most adults too for that matter) believes in many things for egocentric, irrational reasons: because those around her hold the belief, because her desires are justified by the belief, because she is more comfortable with the belief, because she is rewarded for the belief, because she has ego-identified with the belief, because she will not be accepted by her peers without acting on the belief, because the belief helps her to justify her feelings toward people she likes or dislikes.

The child of course also has spontaneously formed reasonable beliefs. Some of those are inconsistent with the expressed beliefs of her parents and teachers. As a result of this contradiction with authority she rarely raises these beliefs to what Piaget calls "conscious realization." The totality of these real beliefs is unsynthesized and contains many contradic- tions which the child will discover only if she is encouraged to freely express herself in an atmosphere that is mutually supportive and child-centered.

The other source of belief, didactic instruction from adult authority figures, is an adult's interpretation of reality, not the child's. The child learns to verbalize it, but does not synthesize it with operational belief. Therefore, the child typically does not recognize contradictions between these two belief systems. The teacher concerned with this problem, then, provides an environment wherein students can discover and explore their beliefs. Such teachers don't rush students who are struggling to express their beliefs, allow a lot of discussion, don't allow anyone to attack students for their beliefs, reward students for questioning their own beliefs, and support students when they consider many points of view.

Unless the teacher provides conditions in which the child can discover her operational beliefs through reflective thinking, these two systems of beliefs will exist in separate dimensions of her life. The first will control her deeds, especially her private deeds; the second will control her words, especially her public words. The first will be used when she acts for herself; the second when she performs for others. Neither, in a sense, will be taken seriously. Neither will be subjected to rational scrutiny. The first because it isn't openly expressed and challenged verbally; the second because it is not tested in the crucible of action and practical decision-making. This dichotomy, when embedded in an individual's life, creates a barrier to living an "examined life." The child lacks the wherewithal to explore her contradictions, double standards, and hypocrisies. She will use critical thinking skills, if at all, as weapons in a struggle to protect herself from exposure, and to lay bare the contradictions of the "other," the "enemy." When she integrates critical thinking skills into this dichotomous thinking, she becomes the self-serving, not the fairminded, critical thinker.

II. Socratic Discussion

Socratic instruction can take many forms. What these forms have in common is that someone develops his thought as a result of the probing, stimulating questions asked him. The "Socratic" questions can come from the teacher or from students. Socratic questions can be used in a large group discussion, in small groups, one-to-one, or even with one's self.

In one sense, any discussion, any thinking, that is guided by Socratic questioning is structured. The discussion, the thinking, is structured to take students from the unclear to the clear, from the unreasoned to the reasoned, from the implicit to the explicit, from the unexamined to the examined, from the inconsistent to the consistent, from the unarticulated to the articulated. To learn how to participate in it, one has to learn how to listen carefully to what others say, to look for reasons and evidence, to recognize and reflect upon assumptions, to discover implications and consequences, to seek examples, analogies, and objections, to seek to discover, in short, what one really knows and to distinguish it from what one merely believes.

Socratic questioning is based on the idea that all thinking has a logic. Its purpose is to expose the logic of someone's thought. Use of Socratic questioning presupposes the following points. All thinking: has assumptions; makes claims or creates meaning; has implications and/or consequences; focuses on some things and throws others into the background; uses some concepts or ideas and not others; is defined by purposes, issues, or problems; includes some facts and not others; is relatively clear or unclear; is relatively deep or superficial; is relatively critical or uncritical; is relatively elaborated or undeveloped; is relatively monological or multi-logical. Critical thinking is thinking done with an effective, self-monitoring awareness of the above points.

To participate effectively in Socratic questioning, one must:

- listen carefully to what others say
- take what they say seriously
- look for reasons and evidence
- recognize and reflect upon assumptions
- discover implications and consequences

- seek examples, analogies, and objections
- seek to distinguish what one *knows* from what one merely *believes*
- seek to enter empathetically into the perspectives or points of view of others
- be on the alert for inconsistencies, vagueness, and other possible problems in thought
- look beneath the surface of things and maintain a healthy sense of scepticism
- be willing to helpfully play the role of devil's advocate

Socratic Questioning

- raises basic issues
- probes beneath the surface of things
- pursues problematic areas of thought
- helps the student to discover the *structure* of his own thought
- helps students develop sensitivity to clarity, accuracy, and relevance
- helps students note claims, evidence, conclusions, questions-at-issue, assumptions, implications, consequences, concepts, interpretations, points of view

It is helpful to recognize, in light of these universal features in the logic of human thought, that there are identifiable categories of questions that the adept Socratic questioner must be able to dip into: questions of clarification, questions that probe assumptions, questions that probe reasons and evidence, questions about viewpoints or perspectives, questions that probe implications and consequences, and questions about the question. Here are some examples of questions in each of these categories:

Questions of Clarification

- What do you mean by ______?
- What is your main point?
- Could you give me an example?
- Could you explain that further?
- Would you say more about that?
- What do you think is the main issue here?
- Let me see if I understand you, do you mean _______ or ______?
- Is your basic point ______ or ______?
- What do you think John meant by his remark?
- Jane, would you summarize in your own words what Richard has said? ... Richard, is that what you meant?
- How does _____ relate to ____?
- Could you put that another way?

Questions that Probe Assumptions

- You seem to be assuming ______. Do I understand you correctly?
- All of your reasoning is dependent on the idea that ____. Why have you based your reasoning on ______ rather than ______?
- You seem to be assuming ____. How would you justify taking this for granted? Is it always the case?

- What is Karen assuming?
- What could we assume instead?

Questions that Probe Reasons and Evidence

- How do you know?
- Why did you say that?
- What would be an example?
- What are your reasons for saying that?
- Why do you think that is true?
- Do you have any evidence for that?
- How could we go about finding out whether that is true?
- What other information do we need to know?
- By what reasoning did you come to that conclusion?
- Could you explain your reasons to us?
- But is that good evidence to believe that?
- Are those reasons adequate?
- Is there reason to doubt that evidence?
- Who is in a position to know if that is the case?
- What difference does that make?
- What would convince you?
- Can someone else give evidence to support that response?
- How does that apply to this case?

Questions About Viewpoints or Perspectives

- You seem to be approaching this issues from _____ perspective. Why have you chosen this rather than that perspective?
- How would other groups/types of people respond? Why? What would influence them?
- How could you answer the objection that ______ would make?
- Can/did anyone see this another way?
- What would someone who disagrees say?
- What is an alternative?
- How are Ken's and Roxane's ideas alike? Different?

Questions that Probe Implications and Consequences

- What are you implying by that?
- When you say ______ are you implying _______?
- But if that happened, what else would also happen as a result? Why?
- What effect would that have?
- Would that necessarily happen or only probably happen?
- What is an alternative?
- If this and this are the case, then what else must also be true?

Questions About the Question

- I'm not sure I understand how you are interpreting the main question at issue.
- How can we find out?
- How could someone settle this question?
- To answer this question, what questions would we have to answer first?
- Is the question clear? Do we understand it?
- Is this the same issue as _______?
- Can we break this question down at all?
- Do we all agree that this is the question?
- Would _____ put the question differently?
- How would ______ put the issue?
- Why is this question important?
- Is this question easy or hard to answer? Why?
- Does this question ask us to evaluate something?
- What does this question assume?

Toward the beginning of the year, Socratic questioning can encourage students to think about a subject, and to probe what students already know about it. Socratic discussion about a subject can also be used at the end of the year to reinforce what students have learned, and highlight any remaining questions or problems. Such general discussions give students a chance to organize details within a given subject, and explore the relationship of the subject to other knowledge. A teacher probing students' ideas about a subject could ask questions like the following (for social studies):

> What is social studies? If students have difficulty, ask: When you've studied social studies, what have you studied/talked about? (If students list topics, put them on the board. Then have students discuss the items and try to group them.) Do these topics have something in common? Are there differences between these topics? (Encourage students to discuss details they know about the topics. If, instead of listing topics, they give a general answer or definition, or if they are able to give a statement about what the topics listed have in common, suggest examples that fit the definition, but are not social studies, e.g., if a student says, "It's about people" mention medicine or health. Have them modify or improve their definition.) How is social studies like and unlike other subjects? Why study social studies? Is it important? Why or why not? How can we use what we learn in social studies?

Similar questions can be asked at the beginning and end of any particular unit. More important, however, is that the teacher can conduct Socratic discussions any time, on any topic. Use topics the students find interesting, or would find useful. Here are some possible opening questions: What is a friend? What is education/Why learn? What is most important? What is right and wrong? Why be good? What is a good person? What is the difference between living and non-living things?

The teacher must use care and caution in introducing students to Socratic questioning. The level of the questions should match the level of the students' thought. It should not be assumed that students will be fully successful with it except over a considerable length of time. Nevertheless, properly used, it can be introduced in some form or other at virtually any grade level. It can be introduced spontaneously, in any lesson or activity. It need not be pre-planned. It should be available to the teacher at all times.

- What are you assuming?

The following is a transcript of a 4th grade Socratic discussion. The Socratic discussion leader was with these particular students for the first time. The purpose was to determine the status of the children's thinking on some of the abstract questions whose answers tend to define our broadest thinking. The students were eager to respond and often seemed to articulate responses that reflected potential insights into the character of the human mind, its relation to the body, the forces that shape us, the influence of parents and peer group, the nature of morality and of ethnocentric bias. The "insights" are disjointed of course but the questions that elicited them and the responses that articulated them could be used as the basis of future discussions or simple assignments with these students.

While reading the transcript which follows, you may want to formulate questions that could have been asked, but weren't: student responses that could have been followed up, or other directions the discussion could have taken. Another way to approach the manuscript would be to explain the function of each question. Or you could group the questions.

Transcript
4th Grade Socratic Discussion

How does your mind work?
Where's your mind?

Student: "In your head." (numerous students point to their heads)

Does your mind do anything?

Student: "It helps you remember and think."

Student: "It helps, like, if you want to move your legs. It sends a message down to them."

Student: "This side of your mind controls this side of your body and that side controls this other side."

Student: "When you touch a hot oven it tells you whether to cry or say ouch!"

Does it tell you when to be sad and when to be happy?
How does your mind know when to be happy and when to be sad?

Student: "When you're hurt it tells you to be sad."

Student: "If something is happening around you is sad."

Student: "If there is lightning and you are scared."

Student: "If you get something you want."

Student: "It makes your body operate. It's like a machine that operates your body."

Does it ever happen that two people are in the same circumstance but one is happy and the other is sad? Even though they are in exactly the same circumstance?

Student: "You get the same toy. One person might like it. The other gets the same toy and he doesn't like the toy."

Why do you think that some people come to like some things and some people seem to like different things?

Student: "'Cause everybody is not the same. Everybody has different minds and is built different, made different."

Student: "They have different personalities?"

Where does personality come from?

Student: "When you start doing stuff and you find that you like some stuff best."

Are you born with a personality or do you develop it as you grow up?

Student: "You develop it as you grow up."

What makes you develop one rather than another?

Student: "Like, your parents or something."

How can your parent's personality get into you?

Student: "Because you're always around them and then the way they act if they think they are good and they want you to act the same way then they'll sort of teach you and you'll do it."

Student: Like, if you are in a tradition. They want you to carry on something that their parents started."

Does your mind come to think at all the way the children around you think? Can you think of any examples where the way you think is like the way children around you think? Do you think you behave like other American kids?

Student: "Yes"

What would make you behave more like American kids than like Eskimo kids?

Student: "Because you're around them."

Student: "Like, Eskimo kids probably don't even know what the word 'jump-rope' is. American kids know what it is."

And are there things that the Eskimo kids know that you don't know about?

Student: "Yes"

Student: "And also we don't have to dress like them or act like them and they have to know when a storm is coming so they won't get trapped outside."

O.K., so if I understand you then, parents have some influence on howyou behave and the kidsa round you have some influence on how you behave... Do you have some influence on how you behave? Do you choose the kind of person you're going to be at all?

Student: "Yes"

How do you do that do you think?

Student: "Well if someone says to jump off a five-story building, you won't say O.K. You wouldn't want to do that..."

Do you ever sit around and say, "Let's see shall I be a smart person or a dumb one?"

Student: "Yes"

But how do you decide?

Student: "Your grades"

But I thought your teacher decided your grades. How do you decide?

Student: "If you don't do your homework you get bad grades and become a dumb person but if you study real hard you'll get good grades."

So you decide that, right?

Student: "And if you like something at school like computers you work hard and you can get a good job when you grow up. But if you don't like anything at school you don't work hard.

Student: "You can't just decide you want to be smart, you have to work for it."

Student: "You got to work to be smart just like you got to work to get your allowance."

What about being good and being bad, do you decide whether you're good or you're bad? How many people have decided to be bad? (3 students raise their hands) To first student: Why have you decided to be bad?

Student: "Well, I don't know. Sometimes I think I've been bad too long and I want to go to school and have a better reputation but sometimes I feel like just making trouble and who cares."

Let's see, is there a difference between who you are and your reputation? What's your reputation? That's a pretty big word. What's your reputation?

Student: "The way you act. If you had a bad reputation people wouldn't like to be around you and if you had a good reputation people would like to be around you and be your friend."

Well, but I'm not sure of the difference between who you are and who people think you are. Could you be a good person and people think you bad? Is that possible?

Student: "Yeah, because you could try to be good. I mean, a lot of people think this one person's really smart but this other person doesn't have nice clothes but she tries really hard and people don't want to be around her."

So sometimes people think somebody is real good and they're not and sometimes people think that somebody is real bad and they're not. Like if you were a crook, would you let everyone know you're a crook?

Students: Chorus of "NO!"

So some people are really good at hiding what they are really like. Some people might have a good reputation and be bad; some people might have a bad reputation and be good.

Student: "Like, everyone might think you were good but you might be going on dope or something."

Student: "Does reputation mean that if you have a good reputation you want to keep it just like that? Do you always want to be good for the rest of your life?"

I'm not sure...

Student: "So if you have a good reputation you try to be good all the time and don't mess up and don't do nothing?"

Suppose somebody is trying to be good just to get a good reputation — why are they trying to be good?

Student: "So they can get something they want and they don't want other people to have?"

Student: "They might be shy and just want to be left alone."

Student: "You can't tell a book by how it's covered."

Yes, some people are concerned more with their cover than their book. Now let me ask you another question. So if its true that we all have a mind and our mind helps us to figure out the world and we are influenced by our parents and the people around us, and sometimes we choose to do good things and sometimes we choose to do bad things, sometimes people say things about us and so forth and so on... Let me ask you: Are there some bad people in this world?

Student: "Yeah"

Student: "Terrorists and stuff"

Student: "Nightstalker"

Student: "The TWA hijackers"

Student: "Robbers"

Student: "Rapers"

Student: "Bums"

Bums, are they bad?

Student: "Well, sometimes."

Student: "The Klu Klux Klan"

Student: "The Bums... not really cause they might not look good but you can't judge them by how they look. They might be really nice and everything."

O.K., so they might have a bad reputation but be good, after you care to know them. There might be good bums and bad bums.

Student: "Libyan guys and Machine gun Kelly"

Let me ask you, do the bad people think they're bad?

Student: "A lot of them don't think they're bad but they are. They might be sick in the head."

Yes, some people are sick in their heads.

Student: "A lot of them (bad guys) don't think they're bad.

Why did you say Libyan people?

Student: "'Cause they have o' lot a terrorists and hate us and bomb us..."

If they hate us do they think we are bad or good?

Student: They think we are bad."

And we think they are bad? And who is right?

Student: "Usually both of them."

Student: "None of us are really bad!"

Student: "Really, I don't know why our people and their people are fighting. Two wrongs don't make a right."

Student: "It's like if there was a line between two countries, and they were both against each other, if a person from the first country crosses over the line, they'd be considered the bad guy. And if a person from the second country crossed over the line he'd be considered the bad guy."

So it can depend on which country you're from who you consider rightor wrong, is that right?

Student: "Like a robber might steal things to support his family. He's doing good to his family but actually bad to another person."

And in his mind do you think he is doing something good or bad?

Student: "It depends what his mind is like. He might think he is doing good for his family or he might think he is doing bad for the other person."

Student: "It's like the underground railroad a long time ago. Some people thought it was bad and some people thought it was good."

But if lots of people think something is right and lots of people think something is wrong, how are you supposed to figure out the difference between right and wrong?

Student: "Go by what you think!"

But how do you figure out what to think?

Student: "Lots of people go by other people."

But somebody has to decide for themselves, don't they?

Student: "Use your mind?"

Yes, let's see, suppose I told you: "You are going to have a new classmate. Her name is Sally and she's bad." Now, you could either believe me or what could you do?

Student: "You could try to meet her and decide whether she was bad or good."

Suppose she came and said to you: "I'm going to give you a toy so you'll like me." And she gave you things so you would like her, but she also beat up on some other people, would you like her because she gave you things?

Student: "No, because she said I'll give you this so you'll like me. She wouldn't be very nice."

So why should you like people?

Student: "Because they act nice to you."

Only to you?

Student: "To everybody!"

Student: "I wouldn't care what they gave me. I'd see what they're like inside."

But how do you find out what's on the inside of a person?

Student: "You could ask but I would try to judge myself."

Socratic questioning is flexible. The questions asked at any given point will depend on what the students say, what ideas the teacher wants to pursue, and what questions occur to the teacher. Generally, Socratic questions raise basic issues, probe beneath the surface of things, and pursue problematic areas of thought.

The above discussion could have gone in a number of different directions. For instance, rather than focussing on the mind's relationship to emotions, the teacher could have pursued the idea 'mind' by asking for more examples of its functions, and having students group them. The teacher could have followed up the response of the student who asked, "Does reputation mean that if you have a good reputation you want to keep it just like that?" He might, for instance, have asked the student why he asked that, and asked the other students what they thought of the idea. Such a discussion may have developed into a dialogical exchange about reputation, different degrees of goodness, or reasons for being bad. Or the idea 'bad people' could have been pursued and clarified by asking students why the examples they gave were examples of bad people. Students may then have been able to suggest tentative generalizations which could have been tested and probed through further questioning. Rather than exploring the influence of perspective on evaluation, the teacher could have probed the idea, expressed by one student, that no one is 'really bad.' The student could have been asked to explain the remark, and other students could have been asked for their responses to the idea. In these cases and others, the teacher has a choice between any number of equally thought provoking questions. No one question is the 'right' question.

III. Role Playing and Reconstructing Opposing Views

A fundamental danger for human thought is narrowness. We do not naturally and spontaneously open our minds to the insights of those who think differently from us. We have a natural tendency to use our native intelligence and our cognitive skills to protect and maintain our system of beliefs rather than to modify and expand it, especially when ideas are suggested that have their origin in a very different way of thinking. We can never become fairminded unless we learn how to enter sympathetically into the thinking of others, to reason from their perspective and eventually to try seeing things as they see them.

Learning how to accurately reconstruct the thinking of others and how to role play their thinking (once reconstructed) are fundamental goals of critical thinking instruction. Very little work has yet been done in giving students opportunities to role play the reasoning of others. So it is not now clear to what extent or in what forms role-playing to enhance critical reciprocity is possible in 4-6.

But imagine some possible experiments. Suppose after some Socratic discussion a list of reasons was put on the board that supported the children's views, as against their parent's views, on what the children should be allowed to do. A "let's pretend" game might be devised in which some students would pretend that they were parents and were asked, in that role, to give their reasons why children should not be allowed to do x or y or z (stay up past 10:00 p.m., play outside after it gets dark, etc.) It would be interesting to see how accurately the children could reconstruct the reasoning of their parents. Then one might experiment with a "let's pretend" discussion between a student playing "parent" and another student playing "child." The class might subsequently discuss what the best reasons were on each side.

Early history lessons might also provide opportunities for initial role playing experiences. For instance, students could role-play discussions between Indians and settlers on disputed questions.

IV. Teaching for The Intellectual and Moral Virtues of the Critical Person

Our basic ways of knowing are inseparable from our basic ways of being. How we think reflects who we are. Intellectual and moral virtues and/or disabilities are intimately interconnected. To cultivate the kind of intellectual independence implied in the concept of strong sense critical thinking, we must foster intellectual humility, courage, integrity, perseverance, empathy, and fairmindedness. Intellectual humility will be our only extended illustration. The reader will have to imagine what sorts of concrete examples could be marshalled to amplify the others.

> ***Intellectual Humility:*** Awareness of the limits of one's knowledge, including sensitivity to circumstances in which one's native egocentrism is likely to function self-deceptively; sensitivity to bias and prejudice in, and limitations of one's viewpoint. Intellectual humility is based on the recognition that no one should claim more than he actually knows. It does not imply spinelessness or submissiveness. It implies the lack of intellectual pretentiousness, boastfulness, or conceit, combined with insight into the strengths or weaknesses of the logical foundations of one's beliefs.

To illustrate, consider this letter from a teacher with a Master's degree in physics and mathematics, with 20 years of high school teaching experience in physics:

> After I started teaching, I realized that I had learned physics by rote and that I really did not understand all I knew about physics. My thinking students asked me questions for which I always had the standard textbook answers, but for the first time it made me start thinking for myself, and I realized that these canned answers were not justified by my own thinking and only confused my students who were showing some ability to think for themselves. To achieve my academic goals I had to memorize the thoughts of others, but I had never learned or been encouraged to learn to think for myself.

This is a good example of intellectual humility and, like all intellectual humility, is based on insight into the nature of knowing. It is reminiscent of the ancient Greek insight that Socrates was the wisest of the Greeks because he knew how little he really understood. Socrates developed this insight as a result of extensive, in-depth questioning of the knowledge claims of others. He had to think his way to this insight. If we want to instill this insight and this humility, then most textbooks and curricula are in need of extensive modification, for typically they discourage rather than encourage skepticism. The extent and nature of "coverage" for most grade levels and subjects implies that bits and pieces of knowledge are easily attained, without any significant consideration of the basis for the knowledge claimed in the text or by the teacher. Speed coverage of content contradicts the notion that it is essential for the student to seriously consider content before accepting what is claimed. Most teaching and most texts are, in this sense, intellectually unrealistic, and hence foster intellectual arrogance in students, particularly in those who have a retentive memory and can repeat back what they have heard or read. *Pretending* to know is encouraged. Much standardized testing validates this pretense.

This has led Alan Schoenfeld, for example, to conclude that "most instruction in mathematics is, in a very real sense, deceptive and possibly fraudulent." In "Some Thoughts on Problem-solving Research and Mathematics Education," (*Mathematical Problem Solving: Issues in Research*, Frank K. Lester and Joe Garofalo, editors, ©1982 Franklin Institute Press.) he cites a number of examples, including the following:

> Much instruction on how to solve worked problems is based on the "key word" algorithm, where the student makes his choice of the appropriate arithmetic operation by looking for syntactic cues in the problem statement. For example, the word "left" in the problem 'John had eight apples. He gave three to Mary. How many does John have left?'...serves to tell the students that subtraction of the appropriate operation to perform. (p.27)
>
> 1. In a widely used elementary text book series, 97 percent of the problems "solved" by the key-word method would yield (serendipitously?) the correct answer.
>
> 2. Students are drilled in the key-word algorithm so well that they will use subtraction, for example, in almost any problem containing the word "left". In the study from which this conclusion was drawn, problems were constructed in which the appropriate operations were addition, multiplication, and division. Each used the word 'left' conspicuously in its statement and a large percentage of the students subtracted. In fact, the situation was so extreme that many students chose to subtract in a problem that began "Mr. Left..." (p. 27)
>
> I taught a problem-solving course for junior and senior mathematics majors at Berkeley in 1976. These students had already seen some remarkably sophisticated mathematics. Linear algebra and differential equations were old hat. Topology, Fourier transforms, and measure theory were familiar to some. I gave then a straightforward theorem from plane geometry (required when I was in the tenth grade). Only two of eight students made any progress on it, some of them by using arc length integrals to measure the circumference of a circle. (Schoenfeld, 1979). Out of the context of normal course work these students could not do elementary mathematics. (pp. 28-29)
>
> In sum, all too often we focus on a narrow collection of well-defined tasks and train students to execute those tasks in a routine, if not algorithmic fashion. Then we test the students on tasks that are very close to the ones they have been taught. If they succeed on those problems we and they congratulate each other on the fact

> that they have learned some powerful mathematical techniques. In fact, they may be able to use such techniques mechanically while lacking some rudimentary thinking skills. To allow them and ourselves, to believe that they "understand" the mathematics is deceptive and fraudulent. (p. 29)

This approach to learning in math is too often parallelled in the other subject areas.

Most teachers got through their college classes mainly by "learning the standard textbook answers" and were neither given an opportunity nor encouraged to determine whether what the text or the professor said was "justified by their own thinking." To move toward intellectual humility, most teachers need to question most of what they learned, as the physics teacher above did, but to do so, they need some intellectual courage, perseverance, and faith in their own capacity to reason and understand subject matter from the perspective of their own thinking.

We can generalize as follows: just as the development of intellectual humility is an essential goal of critical thinking instruction, so is the development of intellectual courage, integrity, empathy, perseverance, fairmindedness, and faith in reason. Furthermore, we richly develop each intellectual (and moral) virtue in turn, only by developing the others. Before we approach this point directly, however, brief characterizations of what we mean by intellectual courage, integrity, empathy, perseverance, and fairmindedness is in order:

Intellectual Courage: The willingness to face and assess fairly ideas, beliefs, or viewpoints to which we have not given a serious hearing, regardless of our strong negative reactions to them. This courage arises from the recognition that ideas considered dangerous or absurd are sometimes rationally justified (in whole or in part), and that conclusions or beliefs espoused by those around us or inculcated in us are sometimes false or misleading. To determine for ourselves which is which, we must not passively and uncritically "accept" what we have "learned." Intellectual courage comes into play here because inevitably we will come to see some truth in some ideas considered dangerous and absurd and some distortion or falsity in some ideas strongly held in our social group. It will take courage to be true to our own thinking in such circumstances. The penalties for non-conformity are often severe.

Intellectual Empathy: Having a consciousness of the need to imaginatively put oneself in the place of others in order to genuinely understand them. We must recognize our egocentric tendency to identify truth with our immediate perceptions or longstanding beliefs. This trait correlates with the ability to reconstruct accurately the viewpoints and reasoning of others and to reason from premises, assumptions, and ideas other than our own. This trait also requires that we remember occasions when we were wrong, despite an intense conviction that we were right, as well as consider we might be similarly deceived in a case at hand.

***Intellectual Good Faith** (Integrity)*: Recognition of the need to be true to one's own thinking, to be consistent in the intellectual standards one applies, to hold one's self to the same rigorous standards of evidence and proof to which one holds one's antagonists, to practice what one advocates for others, and to honestly admit discrepancies and inconsistencies in one's own thought and action.

Intellectual Perseverance: Willingness and consciousness of the need to pursue intellectual insights and truths despite difficulties, obstacles, and frustrations; firm adherence to rational principles despite irrational opposition of others; a sense of the need to struggle with confusion and unsettled questions over an extended period of time, to achieve deeper understanding or insight.

Faith in Reason: Confidence that in the long run one's own higher interests and those of humankind at large will be served best by giving the freest play to reason, by encouraging people to come to their own conclusions through a process of developing their own rational faculties, faith that with proper encouragement and cultivation people can learn to think for themselves, to form rational viewpoints, draw reasonable conclusions, think coherently and logically, persuade each other by reason, and become reasonable, despite the deep seated obstacles in the native character of the human mind and in society as we know it.

Fairmindedness: Willingness and consciousness of the need to entertain all viewpoints sympathetically and to assess them with the same intellectual standards, without reference to one's own feelings or vested interests, or the feelings or vested of one's friends, community, or nation; implies adherence to intellectual standards without reference to one's own advantage or the the advantage of one's group.

These intellectual traits are interdependent. Each is best developed while developing the others as well. Consider intellectual humility. To become aware of the limits of our knowledge, we need the *courage* to face our own prejudices and ignorance. To discover our own prejudices in turn, we often must *empathize* with and reason within points of view we are hostile toward. To achieve this end we must typically *persevere* over a period of time, for learning to empathically enter a point of view against which we are biased takes time and significant effort. That effort will not seem justified unless we have the *faith in reason* to believe we will not be "tainted" or "taken in" by whatever is false or misleading in the opposing viewpoint. Furthermore, merely believing we can survive serious consideration of an "alien" point of view is not enough to motivate most of us to consider them seriously. We must also be motivated by an *intellectual sense of justice*. We must recognize an intellectual *responsibility* to be fair to views we oppose. We must feel *obliged* to hear them in their strongest form to ensure that we are not condemning them out of ignorance or bias on our part. At this point we come full circle back to where we began: the need for *intellectual humility.*

Or, to begin at another point, consider intellectual good faith or integrity. Intellectual integrity is clearly a difficult trait to develop. We are often motivated, generally of course without admitting to or being aware of this motivation, to set up inconsistent intellectual standards. Our egocentric or sociocentric tendencies make us ready to believe positive information about those we like, and negative information about those we dislike. We are likewise strongly inclined to believe what serves to justify our vested interest or validate our strongest desires. Hence, all humans have some innate mental tendencies to operate with double standards, which of course is paradigmatic of intellectual bad faith. Such modes of thinking often correlate quite well with getting ahead in the world, maximizing our power or advantage, and getting more of what we want.

Nevertheless, it is difficult to operate *explicitly* or overtly, with a double standard. We therefore need to avoid looking at the evidence too closely. We need to avoid scrutinizing our own inferences and interpretations too carefully. At this point a certain amount of *intellectual arrogance* is quite useful. I may assume, for example, that I know just what you're going to say (before you say it), precisely what you are really after (before the evidence demonstrates it), and what actually is going on (before I have studied the situation quite carefully). My intellectual arrogance may make it easier for me to avoid noticing the unjustifiable discrepancy between the standards I apply to you and the standards I apply to myself. Of course, if I don't have to empathize with you, that too makes it easier to avoid seeing my duplicity. I am also better positioned if I lack a keen need to be *fair* to your point of view. A little background *fear* of what I might discover if I seriously considered the consistency of my own judgments can be quite useful as well. In this case, my lack of intellectual integrity is supported by my lack of intellectual humility, empathy, and fairmindedness.

Going in the other direction, it will be difficult to use a double standard if I feel a responsibility to be fair to your point of view, see that this responsibility requires me to view things from your perspective empathically, and do so with some humility, recognizing I could be wrong, and you right. The more I dislike you personally, or feel wronged in the past by you or by others who share your way of thinking, the more pronounced in my character the trait of intellectual integrity and good faith must be to compel me to be fair.

The necessary role of insights and intellectual virtues in significant learning has been largely ignored in schooling. This deficiency is intimately connected with another one, the failure of schools to teach students of the need, not only to test what he "learns" in school against his own experience, but also to test what he experiences by what the "learns " in school.

We subject little of our experience to critical analysis. We seldom take our experiences apart, to get some sense of their true worth. We seldom distinguish the "lived" integrated experience into the part that is *raw data,* and the part that is *our interpretation* of the data. Failing to recognize the difference, we ignore how the interests, goals, and desires we brought to those data shaped and structured our interpretation. Similarly, we rarely seriously entertain the possibility that our interpretation (and hence the total experience) might be selective, biased, or misleading.

The process of developing intellectual virtues and insights is part of our developing an interest in taking our experiences apart, to separate their rational from their irrational dimensions. These meta-experiences become important benchmarks and guides for future thought. They make possible modes of thinking and maneuvers in thinking of which the irrational mind is incapable.

To teach for the intellectual virtues, therefore, one must recognize the significant differences between the higher order critical thinking of a fairminded thinker and those of a self-serving thinker. Though both kinds of thinkers share a certain command of the micro-skills of critical thinking and hence would, for example, score well on tests such as the Watson-Glaser Critical Thinking Appraisal or the Cornell Critical Thinking Tests, they would be unequal at tasks which presuppose the intellectual virtues. The self-serving (weak sense) critical thinker would lack the insights that underlie and support these virtues.

To reason well in domains in which I am prejudiced - hence eventually reason my way out of prejudices- I must develop a set of analyzed examples of such reasoning. Of course, to do so, I must see that when I am prejudiced it seems to me that I am not, and in a similar manner, that those who are not prejudiced as I am will nevertheless seem to me to be prejudiced. That is, to a prejudiced person, an unprejudiced person seems prejudiced. I will realize this only to the degree that I have analyzed experiences in which I have first been intensely convinced that I was correct on an issue, judgment, or point of view, only to find after a series of challenges, reconsiderations, and new reasonings that my previous conviction was in fact prejudiced. I must take this experience apart in my mind, clearly understand its elements and how these elements fit together (how I became prejudiced; how I inwardly experienced that prejudice; how intensely that prejudice appeared as insight to me; how I progressively began to break down that prejudice by seriously considering opposing lines of reasoning; how I slowly came to new assumptions, new information, and ultimately new conceptualizations....)

Only by gaining analyzed experiences of reasoning one's way out of prejudices, does one gain the sort of higher order abilities a fairminded critical thinker requires. The somewhat abstract articulation of the intellectual virtues above will take on concrete meaning in the light of these *analyzed experiences*. Their true meaning will be given us in and by these experiences. We can return to them often to recapture and rekindle the insights upon which the intellectual virtues depend.

To generalize, in order to develop intellectual virtues, we must develop a variety of analyzed experiences that represent to us personal models, not only of the pitfalls of our own previous thoughts and experiences, but also of processes we used to reason our way out of or around those pitfalls. These model experiences must be charged with meaning for us. We cannot be *indifferent* to them. We must sustain them in our minds by our sense of their importance, that they may sustain and guide us in our thought.

What does this imply for teaching? For one thing, it implies a somewhat different content or material focus. Our own minds and experiences must become the subject of our study and learning. Indeed, only to the extent that the content of our own experiences becomes an essential part of what is studied will the "usual" subject matter be truly learned. By the same token, the experiences of others must also become part of our studies. But experiences of any kind should always be critically analyzed, and each student must do her own analysis of the experience to be assessed, and recognize what indeed she is doing.

This entails that students grasp the logic of experience, see that, for example, every experience has three elements, each of which may require some special scrutiny in the analytic process: 1) something to be experienced (some actual situation or other); 2) an experiencing subject (with a point of view, framework of beliefs, attitudes, desires and values); and 3) some interpretation or conceptualization of the situation. To take apart any experience, I must ponder three distinctive questions (as well as their interrelation)

1) What are the raw facts, the most neutral description, of the situation?
2) What interests, attitudes, desires, or concerns am I bringing to the situation?
3) How am I conceptualizing or interpreting the situation in light of my point of view?

If students are given a wide range of assignments requiring them to analyze their experiences and the experiences of others along these lines, and ample opportunity to argue among themselves about which interpretations make the most sense and why, then they will begin to amass a collection of critically analyzed experiences. If the experiences illuminate the pitfalls of thought, their identification with the analyses will lay the foundation for their intellectual traits and character. They will have intellectual virtues because they had thought their way to them and internalized them as integral to concrete understandings and insights. Their basic values and their thinking processes will feed each other. Their intellectual and affective life will, to that extent, be integrated. Their standards for thinking will be implicit in their own thinking, rather than in texts, teachers, or the authority of a peer group.

There will be many opportunities in the day-to-day life of school activities to help students develop their intellectual courage, empathy, integrity, perseverance, faith in reason, and fairmindedness. We need not pressure students to develop these traits, but provide conditions which support their growth. When a student expresses an unpopular dissenting view in a classroom discussion, for example, we can afterward praise the student privately for her courage in doing so. We can similarly praise students who display any of the other intellectual virtues from time to time. Such praise should be discreetly given; we should never appear to put down or denigrate other students. The same can be said for fostering essential insights, such as insight into the difference between an objective situation and our own special interpretation of it. If we provide situations that call upon students to express their own interpretations, while distinguishing basic facts from those interpretations, they will develop the crucial insights over time. We must take care, however, not to encourage students to believe either that every interpretation of an event is equally 'correct' or that only one interpretation contains *the* truth. Students should learn over time that *some* interpretations of events are more justified than others (more 'accurate,' relevant,' or 'insightful') while no one interpretation of an event contains *all the truth*.

V. Teaching the Distinction Between Fact, Opinion, and Reasoned Judgment

Many texts claim to foster critical thinking by teaching students to divide all statements into facts and opinions. When they do so, students fail to grasp the significance of dialogical thinking and reasoned judgment. When an issue is fundamentally a matter of fact "What is the weight of this block of wood?" or "What are the dimensions of this figure?" there is no reason to argue about the answer; one should carry out the process that gets us the correct answer. Sometimes this might require following complex procedures. In any case, weighing and measuring, the processes needed for the questions above, are not typically matters of debate.

On the other hand, questions that raise matters of mere opinion, such as, "What sweater do you like better?" "What is your favorite color?" or "Where would you like to spend your vacation?" do not have any one *correct* answer since they ask us merely to express our personal *preferences*.

But most of the important issues we face in our lives are not exclusively matters of fact or matters of preference. Many require a new element: that we reason our way to conclusions while we take the reasoned perspectives of others into account. As teachers, we should be clear in encouraging students to distinguish these three different situations: the ones that call for facts alone, the ones that call for preference alone, and the ones that call for reasoned judgment. When, as members of a jury, we are called upon to come to a judgment of innocence or guilt, we do not settle questions of pure fact, and we are certainly not expected to express our subjective preferences.

Students certainly need to learn procedures for gathering facts and they doubtless need to have opportunities to express their preferences, but their most important need is to learn how to develop their capacity for reasoned judgment, how to come to conclusions of their own based on evidence (facts) and reasoning of their own within the framework of their own perspective. Their values and preferences will of course play a role in their perspective and reasoning, but their perspective should not be a matter of pure opinion or sheer preference. I should not believe in things or people just because *I want to.* I should have good reasons for my beliefs, except of course where it makes sense to have pure preferences. It does make sense to prefer butterscotch to chocolate pudding, but it does not make sense to prefer taking advantage of someone rather than respecting his rights. Over time, students need to get clear about these three categories, since they will never be good thinkers if they commonly confuse them, as most students now do. (See the section on fact/opinion in "How to Use this Book.")

In passing, be sure not to confuse this distinction with that of convergent and divergent questions. Questions of opinion and questions of reasoned judgment are both 'divergent' but the first does not involve the question of truth or accuracy (because it calls for expression of preference) while the second does (since reasoned judgment can be more or less reasonable, more or less prejudiced, more or less justified).

We have put this distinction into the global strategies section of this handbook to underscore its importance as a pervasive emphasis in all instruction. In any event, we should always keep in mind global, as well as more specific, strategies in fostering critical thinking. When we habitually play the role of Socratic questioner, habitually seek opportunities to have students reconstruct and role play the thinking of others, habitually encourage students to develop intellectual virtues, and habitually encourage students to distinguish preference from reasoned judgment, we will discover new possibilities for critical thinking instruction and will develop global insights that help guide us in understanding and applying the strategies illustrated more specifically in the lesson remodels that follow.

3

How To Use This Book

You may choose to read this book as you would any other book, but if you do, you will probably miss a good deal of the benefit that can be derived from it. If you are a 4-6 teacher and you want to improve your ability to teach for critical thinking, this book can help you develop the ability to remodel your own lesson plans, your own teaching strategies. To do so, you should get a sense of your present ability to critique and redesign lesson plans. The critiques and remodels that follow, and the principles and strategies that precede them, may provide an immediate catalyst for you to take your lesson plans and redesign them. But the longer critiques and remodels here might intimidate you, and you may bog down as soon as you attempt to redesign your own. In many of our remodels, we put as many ideas as we could think of, in order to provide as many examples and varieties of applications as possible. Thus, many of the remodelled plans are longer than you might be willing to produce or teach.

We therefore suggest an alternative approach. Read through the strategies and a couple of remodels, then write critiques and remodels of your own, after reading the original lesson or abstract of one of our shorter remodels. After you have attempted a critique and remodel, read our critique and remodel. By using this procedure, you will soon get a sense of the difficulties in the critique-remodel process. You will also have initiated the process of developing your own skills in this important activity. When comparing your work to ours, keep in mind that this is a flexible process; our remodel is not the only right one. Any changes which promote fairminded critical thought are improvements. Another way of testing your understanding of the critical insights is to read the principle section of a strategy, and write your own application section.

If, when reviewing a remodel, you find a particular strategy confusing, review the principle and application in the strategy chapter. If, when reading the strategy chapter, a strategy confuses you, review the critiques and remodels of the lessons listed below it. If you are still confused, do not use the strategy. Review it periodically until it becomes clear.

When remodelling your own lessons, you will probably find that sometimes you can make more drastic changes, or even completely rewrite a lesson, while at others you may make only minor adjustments. Some of your remodels may make use of many strategies, say, two or more affective strategies, and a macro-ability requiring coordinated use of several micro- skills. For other remodels, you may use only one strategy.

If students don't grasp an idea or skill when you introduce it, don't give up. Critical insight must be developed over time. For instance, suppose the first attempt to foster reciprocity fails. It is likely that students are not in the habit of restating each other's positions, and hence may not listen carefully to each other. If you make restating opposing views a routine part of discussion, students will eventually learn to prepare themselves by listening more carefully.

Although the main function of this book is to help you remodel your lesson plans, we have not restricted our suggestions to the remodelling process. We strongly urge you to apply the insights embedded in the strategies to all aspects of classroom experience (including discussions, conflicts, and untraditional lessons — say, a movie.) You may also use our remodels, or sections of them. Though many of our lessons are too long for one class period, we did not suggest where to break them up. Nor could we provide crucial follow up questions.

Texts often have the same features - whether problems or opportunities for critical thought - occurring over and over again. Hence, remodelling a couple of lessons from a text can give you a basic structure to use many times over the course of the year.

However you use what follows in this book, your understanding of the insights behind the strategies will determine the effectiveness of the remodels. Despite the detail with which we have delineated the strategies, they should not be translated into mechanistic, step-by-step procedures.

Common Problems with Texts

One crucial aspect of remodelling remains to be discussed: that of choosing which lessons to remodel. It is our view, after examining hundreds of 4-6 lesson plans, that many of them ought to be abandoned rather than remodelled. Many of them are exercises in what might be called "trivial pursuit," wherein the student is presented with or led to discover random facts and esoteric vocabulary. The object behind many 4-6 lesson plans seems to be to expose the student to a wide variety of unassessed "facts," on the assumption that, since this constitutes new information for her, it is a good in itself.

We, however, feel that school time is too precious to spend any sizeable portion of it on random facts. The world, after all, is filled with an infinite number of facts. No one can learn more than an infinitesimal portion of them. Random fact collecting is therefore pointless. True, we need facts and information, but there is no reason why we cannot gain facts as part of the process of learning how to think, as part of broader cognitive-affective objectives. Problem-solving or exploring basic ideas or issues are effective ways to find and use facts, and to discover why "facts" interest us in the first place. We ought not to overburden the child's mind with facts that the child cannot put to use in his thinking. If we don't apprehend the relevance and significance of facts, we tend to forget them rather quickly. We encourage the reader therefore to develop a skeptical eye for lesson plans that fall into the category of "trivial pursuit" or "fact-for fact's sake." Keep a waste basket handy.

Often, though the lesson as a whole covers significant material, parts of it are trivial. The student's text provides insignificant details, the teacher's edition suggests trivial activities, interrupting discussion of significant ideas. As a rule, texts fail to properly distinguish the trivial from the significant. Useless details receive equal time to basic concepts. End of chapter review questions especially confuse major with minor points. Structuring instruction around basic ideas and issues highlights crucial details.

Beyond the lessons and activities that need to be abandoned for their triviality, there are also lesson plans and activities that drill students - reading or filling out graphs, time lines, and charts, generalizing, categorizing, researching, experimenting, problem-solving. Such lessons turn skills of thought and crucial insights into mechanical procedures. Students practice the skills for practice itself, seldom in a context in which the skill aids understanding; thus, students fail to learn when to apply this or that procedure and so need to be told when to use it. The application of the skill is often merely memorized (and so easily forgotten), rather than understood. Students look for 'indicator words,' or verbal cues, rather than recognizing the logic of situations requiring use of the skill. The purposes, contexts within which the skill is needed, and reasons for applying the skill a certain way, should all be discussed or discovered by students.

This integration should be viewed, not as slowing down, but as deepening the understanding of the material or skill. We should view the critical thinking that the student practices as providing the student with powerful concepts which she can use in a host of circumstances thereafter, and laying the foundation for the "I-can-figure-things-out-for- myself" attitude essential for education.

Finally, we recommend that the teacher keep an eye out for texts, questions, and activities that claim to emphasize or teach critical thinking. Often what is taught, or the way it is taught discourages clear and fairminded thought. The following problems are among the most common:

- Many texts emphasize micro-skills. Yet they seldom attempt to teach critical vocabulary to students. Perhaps this is fortunate, since they often misuse the vocabulary of critical thinking or logic. Many texts say 'infer' or 'conclude' when requiring students to recall, describe, or guess. Micro-skills (like many other skills) are treated as things in themselves, rather than as tools which assist understanding. Many texts drill micro-skills, but fail to mention or have students apply them when they are most useful. Instead, 'analysis of arguments' too often consists of 'separating fact from opinion,' rather than clarifying or evaluating arguments.

- Teachers' notes often suggest debates. Yet traditional debate, with its emphasis on 'winning,' and lack of emphasis on fairminded understanding of the opposition, with its formal structure and artificial limits, does not in itself promote the serious, honest, fairminded analysis and evaluation of ideas and arguments we want to foster. If afterward students merely 'vote' on the issue, they need not rationally evaluate the views or justify their evaluations. Ultimately, such activities may encourage treatment of questions calling for reasoned judgment as questions of preference. Of course the form of debate can be useful if students are required to sympathetically consider both sides of an issue and not just defend their side.

- Many texts tend to simply ask students to agree or disagree with conclusions. They fail to require that students show they understand or have rationally evaluated what they agree or disagree with. Discussion is limited. Micro-skills are usually not practiced or orchestrated. Argument evaluation is further oversimplified, since only two choices are presented: agreement or disagreement. Students are usually not asked "To what extent do you agree with this claim, or with what aspect of it?"

- Sometimes texts emphasize the idea of perspective, and the importance of being able to enter into another perspective. Yet these ideas are not integrated into understanding and evaluating arguments, issues, or conclusions. Nearly all of these activities require students to take the points of view of objects, animals, or martians. One lesson about different perspectives on historical events detailed the complaints of a woman whose baby was awakened by Paul Revere on his famous ride. Though we find no fault with whimsical, creative selections and assignments, we believe that students should also use their imaginations to enter into other views, to better understand and evaluate important claims.

Fact/Opinion

By far the most all-pervasive, confused, and distorted idea about critical thinking is found in the manner in which students are encouraged to "distinguish fact from opinion." Texts give one or more of the following explanations of the 'distinction:' Facts are true; can be proven; are the most reliable source of information. Opinions are what someone thinks is true; are not necessarily true for everyone; are disputed; are judgments. Opinions are not necessarily either right or wrong.

Among our criticisms of the uses of the distinction are the following: 1) Students are often asked to judge the truth of claims they are not in a position to know; 2) the way the distinction is made in examples and exercises promotes uncritical thought, for example, the distinction often unhelpfully lumps together significantly different types of claims; 3) often neither category is presented so as to allows for rational assessment. (Facts are presented as true, and therefore need no debate; opinions are just opinions, so there is no 'truth of the matter.' Texts speak of exchanging opinions, but not assessing them.

When asked to make this distinction, students are typically given two or more statements. They are asked to read them, and determine into which of the two categories each fits. Since the statements lack context, their *truth* or reasonableness typically cannot be rationally judged. Hence, as a rule, students are forced to make their judgments on superficial bases. In place of some reasoned assessment, students are given "indicators of fact." For example, statements judged to be facts are those which contain numbers or statements about observations or ones in "neutral" language. Statements judged to be opinions are those which contain: 'I think,' 'good,' 'worst,' 'should,' 'I like,' or any evaluative term.

Since 'facts' are defined as 'true,' in effect, texts typically teach students to accept any statement with numbers, descriptions, etc. in it. Fact/opinion exercises typically teach students that every statement that 'sounds like a fact' is *true* and *should be accepted*. Claims which *seem* factual are not open to question. Students are often not in a position to know whether or not the claim is true, but, since they need only look at the form of the statement and not its content, they can 'get the right answers' to the exercises.

Students are often told that history is 'fact.' (The evaluations and interpretations that appear in students' history books are forgotten.) Thus, if they read that a certain condition caused an historical event, they are in effect encouraged to believe it is fact and therefore true. But causes of historical events must be reasoned to. They are not written on the events for all to see. The interpretation inextricably part of any historical account is ignored.

Sometimes text writers seem to intend to teach students to distinguish acceptable from questionable claims, while at other times, statements which are empirically verifiable from those which are not (that is, whether evidence alone verifies the claim, or 'personal beliefs' also enter in). In effect, many texts confuse these two distinctions by shifting from one to the other. For example, given the way texts usually teach the distinction, the claim "I think there are thirteen chairs in that room." would be categorized as opinion, since it begins with 'I think,' (an opinion indicator) and, since the speaker is unsure, the claim cannot be counted as true. Yet, by the second sense of the distinction, the claim is fact - that is, senses are all we need to verify it. It requires no interpretation, analysis, evaluation, judgment, doesn't express preference, etc.

Texts virtually never say what to do with claims that are certainly true, but are not empirical, for example: "Murder is wrong." or "A diet of potato chips and ice cream is bad for you." The student who follows the 'indicator word' method of drawing the distinction, is forced to call these claims opinion. He is then forced to say that, although he agrees with them, they may not be true for everybody; the opposite opinion is just as valid; no objective support can be marshalled for them or objective criteria or standards to evaluate them. The student who looks at the contents of the claims would call them 'facts' because they are so obviously true. This student would miss the distinction between these claims and claims that can be tested by experiment or observation.

The distinction is often drawn in such other guises as the distinction between accurate and biased or slanted accounts, news and editorials, history and historical fiction, knowledge or information and belief or value. Thus, on the criterion above, a passage, selection, article or book which contains nothing but 'facts' could not possibly be biased or untrustworthy. Yet a 'purely factual' account could well be biased. What the writer claims as facts could simply be false, or without basis - that is, I could simply say it, without verifying it. (There are thirteen chairs in that room. I may have pulled the number out of the sky.) Crucial facts which could influence one's interpretation of the facts could have been left out.

The distinction as typically covered lumps together too many completely different kinds of statements. Among the 'opinions' we found were the following: "I detest that TV show." "Youth is not just a time, it is an age." "Jon is my best student." "Most children in Gail's class do not like her." Thus, expressions of preference, evocative statements, evaluations, and descriptions of people's attitudes are put in the same category, given the same status.

Many of the distinctions covered in a confused way might be covered so as to foster critical thinking. Unfortunately, as texts are presently written, this end is seldom achieved.

Critical thinking requires self-understanding. A critical thinker realizes that his feelings are his response but not the only possible, or even necessarily the most reasonable response to a situation.

School time is too precious to spend any sizeable portion of it on random facts. The world, after all, is filled with an infinite number of facts. No one can learn more than an infinitesimal portion of them. Though we need facts and information, there is no reason why we cannot gain facts as part of the process of learning how to think.

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Strategies

This chapter is crucial. Any remodelling you do should reflect your grasp of both the strategies described in this chapter, and the faults in and shortcomings of the originals you use.

Each strategy section has three parts. The 'principle' provides the theory of critical thinking on which the strategy is based. The 'application' explains when and how the strategy can be used. In some cases, our lists of possible questions are larger and more detailed here than in the remodels. Each section concludes with a list of lesson plans (and their page numbers) in which we use the strategy.

Some strategies can be applied in more than one way. Under 'application' we explain when each specific method can be used. Most questions in the applications can be applied in any discussion, whether part of a remodel, unremodelled plan, or neither. For instance, any disagreement can be used to foster reciprocity.

As we mentioned before, the strategies and remodels should be used to illuminate each other. If puzzled by a remodel (ours, or your own) see the strategies. If puzzled by a strategy, see the originals and our critiques and remodels for clarification.

The reader should keep in mind the connection between the principles and applications, on the one hand, and the character traits of a fairminded critical thinker, on the other. Our aim, once again, is not a set of disjointed skills, but an integrated, committed, thinking person.

In teaching for critical thinking in a strong sense, the affective dimension of thinking is fully as important as the cognitive. The strategies listed below are divided into three categories, one for the affective and two for the cognitive. This of course is not to imply that the cognitive dimension of critical thinking should be given twice as much emphasis, because in any given case, whatever dimension is emphasized, the other dimension should be integrated. We want students to continually use their emerging critical thinking skills and abilities in keeping with the critical spirit and the critical spirit can be nurtured only when actually practicing critical thinking in some (cognitive) way. One cannot develop one's fairmindedness, for example, without actually thinking fairmindedly. One cannot develop one's intellectual independence, without actually thinking independently. This is true of all the essential

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critical thinking traits, values, or dispositions. They are developmentally embedded in thinking itself.

We have divided the cognitive strategies into two groups to emphasize the importance of distinguishing critical thinking *micro-skills*, the most elementary critical thinking skills, from critical thinking *macro-abilities* or processes, the orchestration of skills in an extended activity of thought. For example, the ability to clarify a basic issue typically requires an extended sequence of thought. In that sequence, one may use a variety of micro-skills: one might distinguish ideas, make inferences, explore assumptions, use qualifiers, and explore implications. Of course, the reader is well advised to remember that in some cases what we are calling a micro-skill might require an extended sequence of thought while in other cases what we are calling macro-abilities might seem to come down to one intellectual move. It is not important to keep these somewhat arbitrary descriptions firmly restricted to one category, but rather to realize that no set of micro-skills defines critical thinking as such, because the thinker must also learn to orchestrate them.

Macro-practice is almost always more important than micro-drill. We need to be continually vigilant against the misguided tendency to fragment, atomize, mechanize, and proceduralize thinking.

Keeping the above remarks in mind, the teacher should think about the strategies as tools for sometimes helping students develop particular micro-skills, sometimes helping students to orchestrate those skills in extended ways, and sometimes helping students to gain insight into the traits, values, and dispositions essential for strong sense critical thinking.

A.	**Affective Strategies**
S-1	exercising independent thought
S-2	developing insight into ego/sociocentricity
S-3	exercising fairmindedness/reciprocity
S-4	exploring thoughts underlying feelings
S-5	suspending judgment

B.	**Cognitive Strategies - Macro-Abilities**
S-6	avoiding oversimplification
S-7	transferring ideas to new contexts
S-8	developing one's perspective
S-9	clarifying issues and claims
S-10	clarifying ideas
S-11	developing criteria for evaluation
S-12	evaluating source credibility
S-13	raising and pursuing root questions
S-14	evaluating arguments
S-15	generating or assessing solutions
S-16	evaluating actions and policies

S-17	clarifying or critiquing text
S-18	making interdisciplinary connections
S-19	engaging in Socratic discussion
S-20	practicing dialogical thinking
S-21	practicing dialectical thinking

C. Cognitive Strategies - Micro-Skills

S-22	distinguishing facts from ideals
S-23	using critical vocabulary
S-24	distinguishing ideas
S-25	examining assumptions
S-26	distinguishing relevant from irrelevant facts
S-27	making plausible inferences
S-28	supplying evidence for a conclusion
S-29	recognizing contradictions
S-30	exploring implications and consequences
S-31	refining generalizations

S-1 EXERCISING INDEPENDENT THOUGHT

Principle: Critical thinking is autonomous thinking, thinking for oneself. Many of our beliefs are acquired at an early age, when we have a strong tendency to accept beliefs for irrational reasons (because we want to believe, because we are rewarded for believing). The critical thinker uses critical skills to reveal and eradicate beliefs to which he cannot rationally assent. In formulating new beliefs, the critical thinker does not passively accept the beliefs of others; rather he analyzes issues himself, rejects unjustified authorities, and recognizes the contributions of justified authorities. He does not accept as true, or reject as false, beliefs he does not understand. He is not easily manipulated.

Application: A critical education respects the autonomy of the student. It appeals to rationality. Students should be encouraged to discover information, and use their knowledge, skills and insights to think for themselves. Merely giving students 'facts' or telling them the 'right way' to solve a problem hinders the process of critiquing and modifying pre-existing beliefs with new knowledge.

Rather than simply having students discuss ideas in their texts, the teacher can have them brainstorm ideas and argue among themselves, for instance, about problems and solutions to problems. Before reading a section of text that refers to a map, chart, time-line, or graph, have students read and discuss what the map, or the rest, shows. Have students develop their own categories instead of providing them with categories. For example, remodel "Types of Literature" lessons by having students discuss and group writings they have read.

When giving written assignments, those assignments should provide many opportunities for the student to exercise independent judgment: in gathering and assembling information, in analyzing and synthesizing it, and in formulating and evaluating conclusions. Have students discuss how to organize their points in essays. In science, students could put their own headings on charts or graphs they make, or decide what kind of graph would be most illuminating.

Students could review material themselves, rather than relying on their texts for summaries and review questions. The class could brainstorm about what they learned when studying a lesson or unit. Only after they have exhausted their memories should the teacher try to elicit any crucial points neglected.

Students should develop the habit of asking themselves "What do I believe? How did I come to believe it? Do I really accept this belief?"

Lesson plans in which the strategy is used:

	Page		Page
Parts of Speech	72	Gandhi	182
The Fun They Had	76	Countries of Eastern Europe	196
Jobs	79	Cool it	220
Do Me a Favor	84	Magnets	223
The Lonely Silence	94	Polar Ice Caps	225
The Fountain of Youth	98	What's in the Bag	227
News	102	Rubber Bands	229
The Cave	116	Weather	232
People and Earth	133	Ah Chute	237
Beliefs	138	Making Models: The Atom	240
Spanish California	150	What Kind of Biome	242
Looking Forward	176	Earthquake	246

S-2 DEVELOPING INSIGHT INTO EGO/ SOCIOCENTRICITY

Principle: Egocentricity is the confusion of immediate perception with reality. It manifests itself as an inability or unwillingness to consider others' points of view, to accept ideas or facts which would conflict with gratification of desire. In the extreme, it is characterized by a need to be right about everything, a lack of interest in consistency and clarity, an 'all or nothing' attitude ("I am 100% right; you are 100% wrong."), and a lack of self-consciousness of one's own thought processes. The egocentric individual is more concerned with the appearance of truth, fairness, and fairmindedness, than with actually being correct, fair, or fairminded. Egocentricity is the opposite of critical thought.

As people are socialized, egocentricity tends to produce sociocentricity. Egocentric identification extends to groups. The individual goes from "I am right!" to "*We* are right!" To put this another way, people find that they can often best satisfy their egocentric desires through a group. "Group think" results when people egocentrically attach themselves to a group. One can see this in both children and adults: My daddy is better than your daddy! My school (religion, country, race, etc.) is better than yours.

If egocentricity and sociocentricity are the disease, self-awareness is the cure. In cases in which his own egocentric commitments are not supported, hardly anyone accepts another's egocentric reasoning. Most can identify the sociocentricity of members of opposing groups. Yet when we are thinking egocentrically or sociocentrically, it seems right to us (at least at the time). Our belief in our own rightness is easier to maintain because we suppress the faults in our thinking. We automatically hide our egocentricity from ourselves. We fail to notice when our behavior contradicts our self-image. We base our reasoning on false assumptions we are unaware of making. We fail to make relevant distinctions, though we are otherwise aware of, and able to make them (when making such distinctions does not prevent us from getting what we want). We deny or conveniently 'forget' facts inconsistent with our conclusions. We often misunderstand or distort what others say.

The solution, then, is to reflect on our reasoning and behavior; to make our assumptions explicit, critique them, and, when they are false, stop making them; to apply the same concepts in the same ways to ourselves and others; to consider every relevant fact, and to make our conclusions consistent with the evidence; and to listen carefully and open-mindedly to those with whom we disagree. We can change these tendencies when we see them for what they are: irrational and unjust. Therefore, the development of students' awareness of their egocentric and sociocentric patterns of thought is a crucial part of education in critical thinking.

Application: Though everyone has egocentric, sociocentric, and critical (or fairminded) tendencies to some extent, the purpose of education in critical thinking is to help students move away from egocentricity and sociocentricity, toward increasingly critical thought.

The teacher can facilitate discussions of egocentric or sociocentric thought and behavior whenever such discussions seem relevant. Such discussions can be used as a basis for having students think about their own egocentric or sociocentric tendencies. The class can discuss conditions under which people are most likely to be egocentric, and how egocentricity interferes with our ability to think and listen. Students should be encouraged to recognize common patterns of egocentric thought. The class can discuss some of the common false assumptions we all make at times (e.g., "Anyone who disapproves of anything I do is wrong or unfair. I have a right to have everything I want. Truth is what I want it to be.") Teachers can also have students point out the contradictions of egocentric attitudes. ("When I use something of yours without permission, it is 'borrowing'; when you use something of mine, it is 'stealing.' Taking something without asking is O.K. Taking something without asking is wrong.") Sometimes story characters illustrate egocentricity.

Often texts attempt to discourage sociocentricity by encouraging students to agree that people whose ways are different are not necessarily wrong. Yet, by keeping discussion general, and not introducing specific advantages of different ways, students are left with a vague sense that they should be tolerant, rather than a clear sense that others have ways worth knowing about and learning from.

Some texts inadvertently foster sociocentricity by presenting only the American side of issues or presenting some groups in a distinctly negative light. The teacher could encourage students to recognize sociocentric bias, reconstruct and consider other views of current and historical issues, and discuss how to avoid thinking sociocentrically.

Lesson plans in which the we use the strategy:

	Page		Page
Viewpoints	89	The Scapegoat	119
The Lonely Silence	94	Spanish California	150
The Fountain of Youth	98	The U. S. Becomes a World Leader	165
Advertisements	109	Looking Forward	176
The Cave	116	The Soviet Union	186

S-3 EXERCISING FAIRMINDEDNESS/ RECIPROCITY

Principle: To think critically about issues we must be able to consider the strengths and weaknesses of opposing points of view. Since critical thinkers value fairmindedness, and recognize their tendency to be unfairminded, they feel that it is especially important that they entertain positions with which they disagree. They realize the unfairness of judging the ideas of another until they fully understand them. The process of considering an opposing point of view aids critical thinkers in recognizing the logical components of their beliefs, (e.g. key concepts, assumptions, implications, etc.) and puts them in a better position to amend those beliefs.

Furthermore, critical thinkers recognize that their behavior affects others, and so consider their behavior from the perspective of those others.

Application: The teacher can encourage students to show reciprocity when class and play- ground disputes arise or when the class is discussing issues, evaluating the reasoning of story characters, or discussing people from other cultures.

When disputes naturally arise in the course of the day, the teacher can ask students to state one another's positions. Students should be given an opportunity to correct any misunderstanding of their positions. The teacher can then ask students to explain why their fellow student might see the issue differently than they do. *"What is Sue angry about? Why does that make her mad? Sue, is that right?"*

Students can be encouraged to consider evidence and reasons for positions they disagree with, as well as those with which they agree. For example, have students consider positions from their parents' or siblings' points of view. *"Why doesn't your mother want you to ...? Why does she think it's (bad for you, wrong, etc.)?"*

Though texts often have students consider a subject or issue from second a point of view, discussion is brief, rather than extended, and no attempt is made to have students integrate insights gained by considering multiple perspectives. If students write a dialogue about an issue from opposing points of view, or contrast a story character's reasoning with an opposing point of view, or role play discussions, the teacher can have them directly compare different perspectives.

When the class is discussing different cultures the teacher can encourage students to consider why people choose to do things differently or why other people think their ways are best. For example, ask, *"What would be some advantages to arranged marriages?"*

Lesson plans in which the strategy is used:

	Page		Page
The Fun They Had	76	Spanish California	150
Viewpoints	89	The U. S. Becomes a World Leader	165
The Lonely Silence	94	Gandhi	182
The Fountain of Youth	98	Soviet Union	186
Advertising	109	People Change the Earth	191
Beliefs	138	Countries of Eastern Europe	196
Language	144	Governments & Economic Systems	202

S-4 EXPLORING THOUGHTS UNDERLYING FEELINGS

Principle: Critical thinking requires self-understanding. A critical thinker realizes that his feelings are his response (but not the only possible, or even necessarily the most reasonable response) to a situation. He knows that his feelings would be different if he had a different understanding or interpretation of that situation. He recognizes that thoughts and feelings, far from being different kinds of 'things,' are two aspects of his responses. The uncritical thinker sees no relationship between his feelings and his thoughts.

We can better understand our feelings by asking ourselves "What are the thoughts behind this feeling? To what conclusion have I come? What is my evidence? What assumptions am I making? What inferences am I making? Are they good inferences?" We can learn to seek patterns in our assumptions, and so begin to see the unity behind our separate emotions. Understanding one's self is the first step toward self-control and self-improvement.

Application: Whenever a class discusses someone's feelings, the teacher can ask students to consider what the person might be thinking to have that feeling in that situation. Students can learn to generalize about the assumptions behind a particular emotion. It is especially important for students to practice recognizing the thoughts implicit in their feelings. *"Why does he feel this way? What led him to that conclusion? Would you have felt the same? Why or why not? What accounts for the difference? What could he have thought instead? Then what would he have felt?"*

Lesson plans in which the strategy is used:

	Page		Page
Do Me a Favor	84	The Cave	116
The Lonely Silence	94	Sojourner Truth	157
The Scapegoat	119		

S-5 SUSPENDING JUDGMENT

Principle: Critical thinkers distinguish what they know from what they don't know. They are not afraid of saying "I don't know" when they are not in a position to be sure of the truth of a claim. They are able to make this distinction because they are in the habit of asking themselves "How could one know whether or not this is true?" To say "In this case I must suspend judgment until I find out x, and y," does not make them anxious or uncomfortable. They are willing to rethink conclusions in the light of new knowledge.

Application: Teachers can take advantage of any situation in which students are not in a position to know, to encourage the habit of saying "I don't know." When materials call on students to make claims for which they have insufficient evidence, we suggest the teacher encourage students to suspend judgment. The teacher might first ask for the evidence or reasons for the claim, and have students probe its strength. Students can be encouraged to explain what they would need to learn in order to be more certain. For example, in "The Fountain of Youth," the author claims that the main character died unhappy. Though the character died without finding the fountain for which he searched long and hard, and this is some reason to suppose that he was unhappy, that reason is inconclusive. More direct evidence would be required to know for certain how he felt. Noticing this, you might ask, *"The author thinks Ponce de León was unhappy? Why? Could he have been happy or contented? How do we know which way he felt? How could someone find out?"*

Lesson plans in which the strategy is used:

	Page		Page
The Fountain of Youth	98	Spanish California	150
Language	144	Columbus	161

S-6 AVOIDING OVERSIMPLIFICATION

Principle: It is natural to seek to simplify problems and experiences to make them easier to deal with. Everyone does this. However, the uncritical thinker often oversimplifies, and as a result misrepresents problems and experiences. What should be recognized as complex, intricate, or subtle is viewed as simple, elementary, and obvious. For example, it is typically an oversimplification to view people or groups as *all-good* or *all-bad*, actions as *always right* or *always wrong*, one contributing factor as *the cause*, etc., and yet such beliefs are common. The critical thinker tries to find simplifying patterns and solutions but not by misrepresenting or distorting. Making a distinction between useful simplifications and misleading oversimplifications is important to critical thinking.

Application: Whenever students or the text oversimplify, the teacher can ask questions which raise the problem of complexity. For instance, if a student or text over- generalizes, the teacher can ask for counter-examples. (See *S-31*) If a text overlooks factors by stating one cause for a problem, situation, or event, the teacher can raise questions about other possible contributing factors. If different things are lumped together, the teacher can call attention to differences. (See *S-24*) If interconnected or overlapping phenomena are too casually separated, the teacher can probe overlaps or connections. If only one point of view is expressed, though others are relevant, the teacher can play devil's advocate, bringing in other points of view. Texts often state such vague generalities as "People must work together to solve this problem." Such a statement ignores complications which could be raised by the teacher. *"Why don't they? Why wouldn't this seemingly obvious solution work? So, what else must be done?"*

Lesson plans in which the strategy is used:

	Page		Page
Parts of Speech	72	Birth of Modern Europe	208
Do me a Favor	84	Cool It	220
The Lonely Silence	94	Rubber Bands	229
People and Earth	133	Making Models: The Atom	240
Governments & Economic Systems	202	Hair Keeps Animals Warm	244

S-7 TRANSFERRING IDEAS TO NEW CONTEXTS

Principle: An idea's power is limited by our capacity to see its application. The critical thinker's ability to use ideas mindfully enhances her ability to transfer ideas critically. She practices using ideas and insights by appropriately applying them to other situations. This allows her to organize materials and experiences in different ways, to compare and contrast alternative labels, to integrate her understanding of different situations, and to find fruitful ways to conceptualize novel situations. Each new application of the idea enriches understanding of the idea and the situation.

Application: Critical teaching, focussing more on basic concepts than on artificial organization of material, encourages students to apply what they have just learned to different but analogous contexts. It provides for more than one way to organize material. Using similar information from different situations makes explanations clearer, less vague.

When students master a new skill, or discover an insight, they can be encouraged to use it to analyze other situations. Combine the strategy with independent thought by asking students to name or find analogous situations.

After an idea has been covered, it can be brought up again, when useful. For example, a passage mentions a U. S. soldier during the war with Mexico leading troops over desert on horseback. If students have discussed the ideas that geography and technology affect history, they could be reminded of that insight, and discuss questions like the following: *How did the desert affect the cavalry march? Why? What other affects do deserts have on a war? Have we talked about other deserts that were involved in war or war maneuvers? Compare deserts to other difficult terrain, like mountains. How would the desert have affected marching troops? What else could have affected such a march?*

Lesson plans in which the strategy is used:

	Page		Page
Parts of Speech	72	Countries of Eastern Europe	196
People and Earth	133	Birth of Modern Europe	208
Beliefs	138	Magnets	223
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S-8 DEVELOPING ONE'S PERSPECTIVE

Principle: The world is not given to us sliced up into categories with pre-assigned labels on them. There is always a large number of ways that we can "divide up" and so experience the world. How we do so is essential to our thinking and behavior. Uncritical thinkers assume that their perspective on things is the only correct one. Selfish critical thinkers manipulate the perspectives of others to gain advantage for themselves. Fairminded critical thinkers learn to recognize that their own way of thinking and that of all other perspectives are subject to error. They learn to develop their point of view through a critical analysis of their experience. They learn to question commonly accepted ways of under- standing things, and avoid uncritically accepting the viewpoints of their peer groups or society. They know what their perspective is and can talk insightfully about it.

Application: Perspective is developed through extended thought, discussion, and writing. Students who are unsure what to think can be given time to reflect and come to tentative conclusions. Students who have definite conclusions about the subject at hand can consider ideas from other perspectives, answer questions about what they think, or reflect on new situations or problems. Students can compare what they say they believe with how they act.

One-to-one Socratic questioning may facilitate development of perspective, especially for students who think they've exhausted their ideas. This strategy, in some cases will coincide with evaluating actions and policies, arguments, or assumptions.

Students could explain how what they have learned has changed their thinking in some way. A written assignment could be used as an opportunity for a student to explore an idea in depth, and either come to conclusions, or clarify issues and ideas.

Lesson plans in which the strategy is used:

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Jobs	79	Spanish California	150
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S-9 CLARIFYING ISSUES AND CLAIMS

Principle: The more completely, clearly, and accurately an issue or claim is formulated, the easier and more helpful the discussion of its settlement or verification. Given a clear statement of the issue, and prior to evaluating conclusions or solutions, it is important to recognize what is required to settle the issue. And before we can agree or disagree with a claim, we must understand it clearly. It makes no sense to say "I don't know what you are claiming, but I *deny* it whatever it is." The critical thinker recognizes problematic claims, concepts, and standards of evaluation, making sure that understanding precedes judgment.

Application: Teachers should encourage students to slow down and reflect before coming to conclusions. When discussing an issue the teacher can ask students first, *"Is the issue clear? What do you need to know to settle the issue? What would someone who disagreed with you say about the issue?"* Students should be encouraged to continually reformulate the issue in light of new information. They should be encouraged to see how the first statement of the issue or problem is rarely best (i.e., most accurate, clear, complete) and that they are in the best position to settle questions only after they have developed as clear a formulation as possible.

When discussing an issue, teachers can have students ask themselves such questions as: *Do I understand the issue? Do I know how to settle it? Have I stated it fairly? (Does my formulation assume one answer is correct? Would everyone involved accept this as a fair* *and accurate statement of the issue?) Are the ideas clear? Do I have to analyze any ideas? Do I know when the terms apply and don't apply? Am I evaluating anything? What? Why? What criteria should I use in the evaluation? What facts are relevant? How can I get the evidence I need?* The remodelled lesson, "Questions" focuses on this strategy.

When a claim is unclear, the class can discuss such questions as: *How can we know whether or not this is true? What would it be like for this claim to be true? False? Do we clearly understand the difference? What does this claim assume? What does this claim imply? What does its opposite imply? Is there a clearer way to word this claim? Is there a more accurate way to word it? Can it be rephrased? Do the different ways of putting it say the same thing? Why would someone agree with this claim? Disagree? What evidence would count for it? Against it? Are any ideas (words or phrases) unclear?*

This strategy provides a way of remodelling lessons that focus on "Fact/ Opinion," and or have vague passages of text.

Lesson plans in which the strategy is used:

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The Fountain of Youth	98	The U. S. Becomes a World Leader	165
News	102	The Constitution	170
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S-10 CLARIFYING IDEAS

Principle: Critical, independent thinking requires clarity of thought. A clear thinker understands ideas, and knows what kind of evidence is required to justify applying a word or phrase to a situation. The ability to supply a definition is not proof of understanding. One must be able to supply clear, obvious examples, and to use the idea appropriately. In contrast, for an unclear thinker, words float through the mind unattached to clear, specific, concrete cases. Different ideas are confused. Often the only criterion for the application of a term is that the case in question 'seems like' an example. Irrelevant associations are confused with what are necessary parts of the idea (e.g., "Love involves flowers and candlelight.") Unclear thinkers lack independence of thought because they lack the ability to analyze an idea, and so critique its application.

Application: There are a number of techniques the teacher can use for clarifying ideas.

When introducing concepts, paraphrasing is often helpful for relating the new term (word or phrase) to ideas students already understand. The teacher can also supply a range of examples, allowing students to add to the list.

When introducing or discussing an idea that is not within students' experience, the teacher can use analogies which relate the idea to one with which students are familiar. Students could then compare the ideas.

When discussing ideas with which students are familiar, we suggest that teachers have students discuss clear examples of the idea, examples of the opposite idea (or examples which are clearly not instances of the idea), and examples for which neither the idea or its opposite are completely accurate ('border-line' cases). Have students compare the facts relevant to deciding when the term and its opposite apply, and discuss the implications of the idea and its opposite. Students could also discuss the implications of the idea, and why people make a distinction between it and its opposite.

When clarifying an idea expressed by a phrase, rather than a single word, discuss cases in which the phrase applies, instead of merely discussing the individual words. For example, if clarifying the idea of a 'fair rule,' though a general discussion of 'fairness' may be helpful, the more specific idea 'fair *rule*' should be discussed.

For ideas that commonly have a lot of irrelevant associations, the teacher can have students distinguish those associations which are logically related to the idea, from those which are not. Have the class brainstorm ideas associated with the idea under discussion. Then ask the students if they can imagine using the term for situations lacking this or that listed idea. Students may see that many of their associations are not part of the concept. They are left with a clearer understanding of what is relevant to the concept, and will be less tempted to confuse mere association with the idea.

Lesson plans in which the strategy is used:

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Parts of Speech	72	Spanish California	150
The Fun They Had	76	Columbus	161
Jobs	79	Looking Forward	176
Do Me a Favor	84	Gandhi	182
The Lonely Silence	94	People Change the Earth	191
The Fountain of Youth	98	Birth of Modern Europe	208
Advertising	109	What's in the Bag	227
Critical Thinking	123	Rubber Bands	229
Beliefs	138	Ah Chute	237
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S-11 DEVELOPING CRITERIA FOR EVALUATION

Principle: Evaluation is fundamental to critical thinking. The critical thinker realizes that expressing mere preference does not substitute for evaluating. Awareness of the process of evaluating aids fairminded evaluation. This process requires the development and use of criteria. When developing criteria, critical thinkers should understand the object and purpose of the evaluation, and what function the thing being evaluated is supposed to serve. Critical thinkers take into consideration different points of view when attempting to evaluate something. They ask themselves "What, if anything, is a necessary part of the criteria for evaluation?"

Application: Whenever students are evaluating something, the teacher can ask students what they are evaluating, the purpose of the evaluation, and the criteria they used. If, for example, a student says, "Oatmeal is a terrible breakfast," the teacher can ask for clarification (the student is evaluating oatmeal, taste, for instance, may be one criterion). Criteria usually presuppose a purpose of the object. With practice, students can see the importance of developing clear criteria, and applying them consistently. When developing criteria, rational discussion and reciprocity are more important than reaching consensus.

The class could discuss questions like the following: *What are we evaluating? Why? Why do we need an X? Name or describe some good X vs. a bad X. Why? What are the differences? Given these reasons or differences, can we generalize and list criteria? Can we describe what to look for when judging an X? What does an X need to have or be like? Why?*

Lesson plans in which the strategy is used:

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S-12 EVALUATING SOURCE CREDIBILITY

Principle: Critical thinkers recognize the importance of using reliable sources of information when formulating conclusions. They give less weight to sources which either lack a track record of honesty, contradict each other on key questions, are not in a position to know, or have a vested interest in selling a product or idea. Critical thinkers recognize when there is more than one reasonable position to be taken on an issue; they compare alternative sources of information, noting areas of agreement; they analyze questions to determine whether or not the source is in a position to know; and they gather information where sources disagree.

Application: When the class is discussing an issue about which people disagree, the teacher can encourage students to check a variety of sources stressing the importance of familiarizing themselves with opposing points of view. This strategy can be used in history and news lessons.

The class can discuss the relevance of a source's past dependability, how to determine whether a source is in a position to know, and how the motivations of others should be taken into account when determining whether they are a credible source of information. The teacher can ask the following questions: *Is this person in a position to know? (What would someone need, to be in a position to know? What do we know about this person's experience?) What does he claim about this issue? Where did he get his information? Is there reason to doubt him? Has he been reliable in the past? Does he have anything to gain by convincing others to see the issue as he does?*

Finally, the teacher can use examples from the students personal experience (e.g. trying to determine who started a fight at home or on the playground) and encourage students to recognize the ways in which their own motivations can affect their interpretations.

Lesson plans in which the strategy is used:

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S-13 RAISING AND PURSUING ROOT QUESTIONS

Principle: The critical thinker can pursue an issue in depth, covering relevant aspects, in an extended process of thought or discussion. When reading a passage, she looks for issues and ideas underlying the claims expressed. She comes to her own understanding of the details she learns, placing them in the larger framework of the subject or her thought. She can move between basic underlying ideas, and specific details. When pursuing a line of thought, she is not continually dragged off subject. She uses important issues to organize her thought, and is not bound by the organization given by another. Nor is she unduly influenced by the language of another. If she finds that a set of categories or distinctions is more appropriate than that suggested by another, she will use it. Recognizing that categories serve human purposes, she uses those categories which best serve her purpose at that time. She is not limited by accepted ways of doing things. She evaluates both goals and how to achieve them.

Application: Each of the various subject areas has basic questions which it is developed to clarify and settle. The teacher can use such questions to organize and unify details covered in the subject. Perhaps more important are basic questions everyone faces about what people are like, the nature of right and wrong, how we know things, and so on.

Texts fail to develop this trait of pursuing root questions by presenting preformulated conclusions, categories, solutions, and ideals, by failing to raise crucial or thought provoking issues (and so avoiding them), by suggesting a too limited discussion of them, by mixing questions relevant to different issues or by pursuing their objectives in a confusing way. To rectify these problems, teachers need to provide opportunities for the student to come to her own conclusions, construct her own categories, devise her own solutions, and formulate her own ideals. They need to raise thought provoking issues, allow extended discussion of them, and keep the discussion focussed, so that different issues are identified, and appropriately dealt with. The students in turn, need to be clear about the objectives, and to see themselves as accomplishing them in a fruitful way.

Rather than asking students to place objects into pre-existing categories, for instance, the teacher can encourage students to form their own categories. (See *S-1*) Students can then discuss the reasons they had for forming each category. When different students have used different sets of categories to form groups, the teacher can ask such questions as: *When would this set of categories be most useful? When would that set be best? Why would someone else make different groups?*

When a class discusses rules, institutions, activities, or ideals, the teacher can facilitate a discussion of their purposes, importance, or value. Students should be encouraged to see institutions, for example, as a creation of people, designed to fulfill certain functions, not as something that is 'just there.' They will be in a better position, when they are adults, to see that it fulfills its goals. Or, for another example, ideals will be better understood as requiring specific actions, instead of being mere slogans, if the class discusses their value.

When the text avoids important issues related to or underlying the object of study, the teacher or students could raise them, and discuss them at length. Students can go through the assigned material, and possibly other resources, using the chosen issue or issues to organize the details. This strategy can often be combined with dialogical or dialectical discussion, clarifying basic issues or ideas, distinguishing relevant from irrelevant facts, or evaluating actions, arguments, or basic assumptions. Socratic questioning, it should be noted, typically raises root issues. (See the section on Socratic discussion.)

When the lesson does raise root questions, but has too few and scatterred questions regarding it, the teacher can pull out, rearrange, and add to the relevant questions, integrating them into an extended, instead of fragmented, discussion.

Lesson plans in which the strategy is used:

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The Lonely Silence	94	The Soviet Union	186
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News	102	Cool It	220
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Spanish California	150	What Kind of Biome	242
Sojouner Truth	157		

S-14 EVALUATING ARGUMENTS

Principle: Rather than carelessly agreeing or disagreeing with arguments based on their preconceptions of what is true, critical thinkers use analytic tools to determine the relative strengths and weaknesses of arguments. When analyzing arguments, critical thinkers recognize the importance of asking, "What reasons support this conclusion? What would someone who disagrees with this argument say?" They are especially sensitive to the strengths of arguments that they disagree with, recognizing the tendency of humans to ignore, oversimplify, distort, or otherwise dismiss them. The critical thinker analyzes questions and places conflicting arguments in opposition to one another, as a means of highlighting key ideas, assumptions, implications, etc.

Application: Often texts claim to have students analyze and evaluate arguments, when all they have them do is state preferences, and locate factual claims, with very limited discussion. They fail to teach most techniques for analyzing and evaluating arguments. (See "How to Use this Book")

Instead of asking students why they agree or disagree with an argument, the teacher can ask, *"Which argument do you think is strongest and why?"* Students should be encouraged to place arguments in opposition to one another. Ask, *"What reasons are given? What would someone who disagreed with this argument say?"* Students should be encouraged to argue back and forth, and modify their positions in light of the strengths of others' positions. Students can become better able to evaluate arguments by familiarizing themselves with, and practicing, specific analytic techniques such as making assumptions explicit and evaluating them; clarifying issues, claims, and ideas; developing criteria for evaluation; recognizing contradictions; distinguishing relevant from irrelevant facts; evaluating credibility; and exploring the implications of conclusions. (See these strategies.) After extended discussion, have students state their final positions. Encourage them to qualify their claims appropriately.

Lesson plans in which the strategy is used:

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Advertising	109	Columbus	161
The Cave	116	The U. S. Becomes a World Leader	165
The Scapegoat	119	Gandhi	182

S-15 GENERATING OR ASSESSING SOLUTIONS

Principle: Critical problem solvers use everything available to them to find the best solution they can. They evaluate solutions, not independently of, but in relation to one another (since 'best' implies a comparison). They have reflected on such questions as "What makes some solutions better than others? What does the solution to this problem require?" But alternative solutions are often not given, they must be generated or thought-up. Critical thinkers must be creative thinkers as well; generating possible solutions in order to find the best one. Very often a problem persists, not because we can't tell which available solution is best but because the best solution has not yet been made available; no one has thought it up yet. Therefore, although critical thinkers use all available information relevant to their problems, including the results of solutions others have used in similar situations, they are flexible and imaginative, willing to try any good idea whether it has been done before, or not.

Fairminded thinkers take into account the interests of everyone affected by the problem and proposed solutions. They are more committed to finding the best solution, than to getting their way.

Application: We recommend, first, that the teacher have students state the problem, if it has not been done in, or called for by the text. Rather than simply asking students if a given solution is good, the teacher could encourage an extended discussion of such questions as: *Does this solve the problem? How? What other solutions can you think of? What are their advantages and disadvantages? Are we missing any relevant facts? (Is there anything we need to find out before we can decide which solution is best?) What are the criteria for judging solutions in this case? (How will we know if a solution is a good one?) How do the solutions compare with each other? Why? What are some bad ways of trying to solve the problem? What is wrong with them? If this fact about the situation were different, would it change our choice of solutions? Why or why not?*

Lesson plans in which the strategy is used:

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The Scapegoat	119	People Change the Earth	191
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S-16 EVALUATING ACTIONS AND POLICIES

Principle: Critical thinking involves more than an analysis of clearly formulated instances of reasoning; it involves analysis of behavior or policy and a recognition of the reasoning that behavior or policy presupposes. When evaluating the behavior of themselves and others, critical thinkers are conscious of the standards they use, so that these, too, can become objects of evaluation. Critical thinkers are especially concerned with the consequences of actions, and recognize these as fundamental to the standards for assessing both behavior and policy.

Critical thinkers base their evaluations of behavior on assumptions to which they have rationally assented. They have reflected on such root questions as: What makes some actions right, others wrong? What rights do people have? How can I know when someone's rights are being violated? Why respect people's rights? Why be good? Should I live according to rules? If so, what rules? If not, how should I decide what to do? What policies should be established and why?

Application: The teacher can encourage students to raise ethical questions about actions and policies of themselves and others. Students can become more comfortable with the process of evaluating, if they are given a number of opportunities to consider the following kinds of questions: *Why did x do this? What are the probable consequences of these actions? How would you feel if someone acted this way toward you? Why? What reasons were your evaluations based on? Might someone else use a different standard to evaluate? Why? Do you think the action(s) were fair, smart, etc.? Why or why not?*

Too often, history texts fail to have students evaluate the behavior and policies about which they read. Texts often assume that the stated reasons were the real reasons. Sometimes texts describe behavior inconsistent with the stated intentions, yet fail to have students discuss these inconsistencies. Students should evaluate the behavior of important people of the past. Such evaluation can be enhanced by having interested students report on the long-term consequences of past actions and policies. Future citizens of a democracy need to develop their own sense of how leaders and countries should and shouldn't behave.

Lesson plans in which the strategy is used:

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The Lonely Silence	94	The U. S. Becomes a World Leader	165
The Fountain of Youth	98	Gandhi	182
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S-17 CLARIFYING OR CRITIQUING TEXTS

Principle: Critical thinkers read with a healthy skepticism. But they do not doubt or deny until they understand. They clarify before they judge. They realize that everyone is capable of making mistakes and being wrong, including authors of textbooks. They also realize that, since everyone has a point of view, everyone sometimes leaves out some relevant information. No two authors would write the same book, or write from exactly the same perspective. Furthermore, since a textbook is an introduction to the subject, it is not a complete description of it. Therefore, critical readers recognize that reading a book is reading one limited perspective on a subject, and that more can be learned by considering other perspectives.

Application: Students should feel free to raise questions about materials they read. When a text is ambiguous, vague, or misleading, teachers can raise such questions as: *What does this passage say? What does it imply? Assume? Is it clear? Does it contradict anything you know or suspect to be true? How do you know? How could you find out? What might someone who disagreed with it say? Does the text leave out relevant information? Does it favor one perspective? Which? Why do you suppose it was written this way? How could we rewrite this passage to make it clearer, fairer, or more accurate?* (See clarifying issues and claims, developing insight into sociocentricity, refining generalizations, and distinguishing ideas.)

Students can evaluate unit, chapter, and section headings. "*What is the main point in this passage? What details does it give? What ideas do those details support, elaborate on, justify? Is the heading accurate? Misleading? Could you suggest a better heading?*"

Often passages which attempt to instill belief in important American ideals are too vague to mean more than the idea that our ideals are important. Such passages could be reread slowly, with much discussion. Such passages typically say that the ideals are important or precious, that people from other countries with they had them or come here to enjoy them, and so on.

The class could discuss questions like the following: *Why is this right important? How is this supposed to help people? Does not having this right hurt people? How? Why? Why would someone try to prevent people from voting or speaking out? How could they? Why would someone want to find out how people voted? Why is this precious? Why are these rights emphasized? Do you have other rights? Why doesn't the text (or Constitution) say that you have the right to eat pickles? What are the differences between that right and those mentioned? Does everyone believe in this or want this? How do you know? Have you ever heard anyone say that tyranny is the best kind of government, or free speech is bad? Why? Is there a basic idea behind all of these rights? Why does the text say people have this responsibility? How, exactly, does this help our country? Why do some people not do this? What does it require of you? And how do you do that? Is it easy or hard? What else does it mean you should do?*

Lesson plans in which the strategy is used:

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The Scapegoat	119	Governments & Economic Systems	202
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Beliefs	138	Cool It	220
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The Constitution	170	Hair Keeps Animals Warm	244

S-18 MAKING INTERDISCIPLINARY CONNECTIONS

Principle: Though in some ways it is convenient to divide knowledge up into disciplines, the divisions are not absolute. The critical thinker doesn't allow the somewhat arbitrary distinctions between academic subjects to control his thinking. When considering issues which transcend subjects, he brings relevant ideas, knowledge and insights from many subjects to the analysis. He makes use of insights into one subject to inform his understanding of other subjects. There are always connections between subjects (language and logic; history, geography, psychology, anthropology, physiology; politics, geography, science, ecology; math, science, economics). To understand, say, reasons for the American Revolution (historical question), insights from technology, geography, economics, philosophy, etc., can fruitfully apply.

Application: Any time another subject is relevant to the object of discussion, those insights can be used and integrated. Some teachers time coverage of topics in different subjects so that the topic is examined from the perspective of several subjects. (For example, studying aspects of science when doing geography, ecology in social studies, scientific material in language arts. Study of the news can combine with nearly every subject - language arts, social studies, math, geography, science, health, etc.)

Socratic questioning can be used to make subject connections clear. The teacher can use discussion of students' issues and problems to the show importance of bringing insights from many subjects to bear. Students could compare how data is gathered and used in different subjects.

The class could evaluate writing in their texts from a literary or composition standpoint. *"Given what you know about good writing, is this passage well written? Organized? Interesting? Why or why not? How can it be improved? Is the quote used evocative? To the point? How does it illustrate or enhance the point made?"*

Lesson plans in which the strategy is used:

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Sojourner Truth	157	What Kind of Biome	242
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S-19 ENGAGING IN SOCRATIC DISCUSSION

Principle: The critical thinker is nothing if not a questioner. The ability to question and probe deeply, to get down to root ideas, to get beneath the mere appearance of things, is at the very heart of the activity. And, as a questioner, she has many different kinds of questions and moves available, and can follow up her questions appropriately. She can use questioning techniques, not to make another look stupid, but to learn what he thinks, helping him develop his ideas, or as a prelude to evaluating them. When confronted with a new idea, she wants to understand it, to relate it to her experience, and to determine its implications, consequences, and value. Probing questions are the tools by which these goals are reached.

Furthermore, the critical thinker is comfortable being questioned. She doesn't become offended, confused, or intimidated. She welcomes good questions, realizing that they help her improve her ideas.

Application: Students, then, should develop the ability to go beyond the basic what and why questions that are found in their native questioning impulses. To do this they need to discover a variety of ways to put questions which probe the logic of what they are reading, hearing , writing, or thinking. They need to learn how to probe for and question assumptions, judgments, inferences, apparent contradictions, or inconsistencies. They need to learn how to question the relevance of what is presented, the evidence for and against what is said, the way concepts are used, the implications of the position. We need not only to question students, but to have them question each other, and themselves.

Schooling, therefore, should stimulate the student to question, and help make the students comfortable when questioned, so that the questioning process is increasingly valued and mastered. Questioning should be introduced in such a way that students come to see it as an effective way to get at the heart of matters and to understand things from different points of view. It should not be used to embarrass or negate students. It should be part of an inquiry into issues of significance in an atmosphere of mutual support and cooperation.

The teacher should model Socratic questioning techniques, and use them often. Any thought provoking questions can start a Socratic discussion. To follow-up responses, use questions like the following: *Why? If that is so, what follows? Are you assuming that...? How do you know that? Is the point that you are making that.... or, ...? For example? Is this an example of what you mean..., or this, ...? Can I summarize your point as...? What is your reason for saying that? What do you mean when using this word? Is it possible that ...? Are there other ways of looking at it? How else could we view this matter?* (For more questions, see the section on Socratic discussion.)

To develop students' ability to use Socratic questioning, the teacher could present an idea or passage to students, and have them brainstorm possible questions. For instance, they could think of questions to ask story or historical characters, a famous person, or personal hero, on a particular subject. Students can practice questioning in pairs, trading the roles of questioner and questioned. The teacher may provide lists of possible initial questions, and perhaps some follow-up questions. Students could also be allowed to continue the discussion another day, after they've had time to think of questions they could have asked but didn't. As students practice Socratic questioning, see it modelled, and learn the language, skills, and insights of critical thinking, their mastery of questioning techniques will increase.

Lesson plans in which the strategy is used:

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S-20 PRACTICING DIALOGICAL THINKING

Principle: Dialogical thinking refers to thinking that involves a dialogue or extended exchange between different points of view, cognitive domains, or frames of reference. Whenever we consider ideas or issues deeply, we naturally explore the connections of these ideas and issues to other ideas and issues within different domains or points of view. The critical thinker needs to be able to engage in fruitful, exploratory dialogue, proposing ideas, probing roots, bringing subject-matter insights and evidence to bear, testing ideas, and moving between various points of view. When we think, we often engage in dialogue, either inwardly or aloud with others. We need to integrate critical thinking skills into that dialogue so that it is as fruitful as possible. Socratic questioning is one form of dialogical thinking.

Application: In a Socratic transcript we examined, the teacher began with the root question "How does your mind work?" and ended up exploring, through dialogical discussion, seemingly diverse question such as "Why do you think that some people come to like some things and some people seem to like different things? Where does personality come from? How can your parents' personality get into you? Does your mind come to think at all the way the children around you think? Do you decide whether you're good or bad? Are there some bad people in this world? ...how are you supposed to figure out the difference between right and wrong? ...how do you find out what's inside a person?"

The thinking of the class was moving up and back between different points of view expressed in class while it crossed subject matter domains. By routinely raising root questions and root ideas in a classroom setting, multiple points of view get expressed and the thinking proceeds, not in a predictable or straight- forward direction, but in a criss-crossing, back-and-forth, movement. We continually encourage the students to explore how what they think about 'x' relates to what they think about 'y' and 'z.' This necessarily requires that the students thinking move back and forth between their own basic ideas and those being presented by the other students, between their own ideas and those expressed in a book or story, between their own thinking, and their own experience, between ideas within one domain and those in another, in short, between any two perspectives. This dialogical process will sometimes become dialectical. Some ideas will clash or be inconsistent with others. (See thinking dialectically.)

Texts come close to teaching dialogical thinking by having students discuss perspectives other than that presented by their texts. Yet such discussion is simply tacked on; it is not integrated with the rest of the material. Thus, the ideas are merely juxtaposed, not synthesized. Rather than separate activities or discussions about different perspectives, the teacher can have students move back and forth between points of view, (*What do the environmentalists want? Why? Factory owners? Why? Workers? Why? Why do the environmentalists think the factory owners are wrong? How could/do the factory owners respond to that? ... What beliefs do the sides have in common?*)

Lesson plans in which the strategy is used:

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News	102	Governments & Economic Systems	202
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The Scapegoat	119		

S-21 PRACTICING DIALECTICAL THINKING

Principle: Dialectical thinking refers to dialogical thinking conducted in order to test the strengths and weaknesses of opposing points of view. Court trials and debates are dialectical in nature. As soon as we begin to explore ideas we find that some clash or are inconsistent with others. If we are to integrate our thinking, we need to assess which of the conflicting ideas we will provisionally accept and which we shall provisionally reject, or, which parts of the views are strong, and which weak. The critical thinker needs to develop dialectical reasoning skills, so that her thinking not only moves comfortably between divergent points of view or lines of thought, but also can make some assessments in light of the relative strengths and weaknesses of the evidence or reasoning presented. Hence, when thinking dialectically, the critical thinker can use the micro- skills appropriately.

Application: Dialectical thinking can be practiced whenever two conflicting points of view, arguments, or conclusions are under discussion. Stories and history lessons are especially fruitful, here.

The teacher could have proponents of conflicting views argue their positions, and have others evaluate different points. A dialogical discussion could be taped for later analysis and evaluation. Or the teacher could inject evaluative questions into dialogical discussion. *Was that reason a good one? Why or why not? Does the other view have a good objection to that reason? What? And the answer to that objection? To what evidence does each side appeal? Is the evidence from both sides relevant? Questionable, or acceptable? Compare the sources each side cites for its evidence. How can we know which of these conflicting assumptions is best? Is there a way of reconciling these views? The evidence? What is this side right about? The other side? Which of these views is strongest? Why?*

Lesson plans in which the strategy is used:

	Page		Page
The Fountain of Youth	98	Looking Forward	176
Critical Thinking	123	Countries of Eastern Europe	196
The U. S. Becomes a World Leader ...	165	Governments & Economic Systems	202
The Constitution	170		

S-22 DISTINGUISHING FACTS FROM IDEALS

Principle: Self-improvement and social improvement are presupposed values of critical thinking. Critical thinking, therefore, requires an effort to see ourselves and others accurately. This requires recognizing gaps between facts and ideals. The fairminded thinker values truth and consistency and hence works to minimize these gaps. The confusion of facts with ideals prevents us from taking steps to minimize them. A critical education strives to highlight discrepancies between facts and ideals, and proposes and evaluates methods for minimizing them.

Application: Since, when discussing our society, many texts consistently confuse ideals with facts, the teacher can use them as objects of analysis. Ask, *"Is this a fact or an ideal? Are things always this way, or is this statement an expression of what people are trying to achieve? Are these ideals yours? Why or why not? How have people attempted to achieve this ideal? When did they not meet the ideal? Why? What problems did they have? How can we better achieve these ideals? What ideals do we have today that are facts for some people, but not others?"* Students could rewrite misleading portions of text, making them more accurate.

Sometimes, this strategy could take the form of refining generalizations. For example, when considering the idea that Americans are free to choose the work or jobs they want, the teacher could ask, *"Can anyone choose any job he wants? Always? What, besides choice, might affect what job someone has or gets? Would someone who looked like a bum be hired as a salesman? Does this mean he doesn't have this freedom? Why or why not? What if there* *aren't enough openings for some kind of work? How can this claim be made more accurate?"*

The teacher can facilitate a general discussion of the value of achieving consistency of thought and action. Ask, *"Have you ever thought something was true about yourself, but acted in a way that was not consistent with your ideal? Did you see yourself differently then? Did you make efforts to change the behavior? Is it good to have accurate beliefs about yourself, and your country? Why? Can anyone think of ways to be more consistent?"*

Sometimes texts foster this confusion in students by asking questions most people want to answer yes to, for example: Do you like to help others? Do you listen to what other people have to say? Do you share things? Since most people do these things neither always or never, and many of us can use some improvement, though few like to admit it, you might consider rephrasing such questions. For example, ask, *"When have you enjoyed helping someone? When not? Why? Did you have to help that person? When is it hard to listen to what someone else has to say? Why? Have you ever not wanted to share something? Should you have? Why or why not? If you didn't share, why didn't you?"*

Lesson plans in which the strategy is used:

	Page
The Consitution	170
Governments & Economic Systems	202

S-23 INTEGRATING CRITICAL VOCABULARY

Principle: An essential requirement of critical thinking is the ability to think about thinking. The analytical vocabulary in the English language (such terms as 'assume,' 'infer,' 'conclude,' 'criteria,' 'point of view,' 'relevance,' 'issue,' 'elaborate,' 'justify,' 'perspective,' 'contradiction,' 'credibility,' 'evidence,' 'interpret,' 'distinguish') enables us to think more precisely about our thinking. We are in a better position to assess reasoning (our own, as well as that of others) when we can use analytic vocabulary with accuracy and ease.

Application: Since most language is acquired by hearing words used in context, the teacher should try to make critical terms part of his working vocabulary.

When students are reasoning or discussing the reasoning of others, the teacher can encourage them to use critical vocabulary. New words are most easily learned and remembered when they are clearly useful.

When introducing a term the teacher can speak in pairs of sentences: first, using the critical vocabulary; then, rephrasing the sentence without the new term, e.g., *"What facts are relevant to this issue? What facts ought we to consider in deciding this issue? What information would we pay attention to?"* The teacher can also rephrase students' statements to incorporate the vocabulary.

Lesson plans in which the strategy is used:

	Page		Page
The Fun They Had	76	Columbus	161
Viewpoints	89	The U. S. Becomes a World Leader	165
The Cave	116	Looking Forward	176
Critical Thinking	123	Countries of Eastern Europe	196
Spanish California	150	Birth of Modern Europe	208
Sojourner Truth	157	Cool It	220

S-24 DISTINGUISHING IDEAS

Principle: Critical thinkers distinguish between different senses of the same word, recognizing the different implications of each. They understand that a writer's or speaker's purposes determine the ways he uses language. Critical thinkers recognize when two or more concepts are similar or have an important relationship to one another, yet have different meanings. They recognize the different implications of these words. They make clear distinctions, and do not confuse (literally, 'fuse together') distinct ideas.

Application: Whenever a text, or discussion, uses one term in more than one sense, the teacher can ask students to state how it is being used in each case, or have students paraphrase sentences in which they occur. Then the teacher can ask students to generate examples in which one, both, or neither meaning of the term applies. For example, students could distinguish how they use the term 'work,' from how the scientist uses it.

When a text confuses two distinct ideas, students can clarify them. Students can distinguish ideas by discussing the different applications and implications of the concepts. Students could rewrite passages, making them clearer. For example, a social studies text explains how 'consensus' means that everyone in the group has to agree to the decisions. The teachers' notes then suggest discussion of an example wherein a group of children have to make a decision, so they vote, and the majority gets its way. The example, though intended to illustrate the idea of consensus, misses the point and confuses the two ideas. The class could compare the two ideas, and so distinguish them. *What did the text say 'consensus' means? What example does it give? Is this an example of everyone having to agree? What is the difference? How could the example be changed to illustrate the term?*

Lesson plans in which the strategy is used:

	Page		Page
Jobs	79	The Soviet Union	186
The Lonely Silence	94	Governments & Economic Systems	202
Beliefs	138	Rubber Bands	229

S-25 EXAMINING ASSUMPTIONS

Principle: We are in a better position to evaluate any reasoning or behavior when all of the elements of that reasoning or behavior are made explicit. We base both our reasoning and our behavior on beliefs we take for granted. We are often unaware of these assumptions. Although assumptions can be either true or false, it is only by recognizing them that we can evaluate them. Critical thinkers have a passion for truth, and for accepting the strongest reasoning. Thus, they have a passion for seeking out and rejecting false assumptions. They realize that everyone makes some questionable assumptions. They are willing to question, and have others question, even their own most cherished assumptions. They consider alternative assumptions. They base their acceptance or rejection of assumptions on their rational scrutiny of them. They hold questionable assumptions with an appropriate degree of tentativeness.

Independent thinkers evaluate assumptions for themselves, and do not simply accept the assumptions of others, even those assumptions made by everyone they know.

Application: Teachers should encourage students to make assumptions explicit as often as possible. Although it is valuable practice to have students make good assumptions explicit it is especially important when assumptions are questionable. The teacher can ask, "*If this was the evidence, and this the conclusion, what was assumed?*"

There are no rules for determining when to have students evaluate assumptions. Students should feel free to question and discuss any assumptions they suspect are questionable or false. Students should also evaluate good assumptions. Doing so gives them a contrast with poor assumptions.

The following are some of the probing questions teachers can use when a class discusses the worth of an assumption: *Why do people (did this person) make this assumption? Have you ever made this assumption? What could be assumed, instead? Is this belief true? Sometimes true? Seldom true? Always false? (Ask for examples.) Can you think of reasons for this belief? Against it? What, if anything, can we conclude about this assumption? What would we need to find out to be able to judge it? How would someone who makes this assumption act?*

Lesson plans in which the strategy is used:

	Page		Page
Viewpoints	89	Spanish California	150
The Lonely Silence	94	Columbus	161
The Fountain of Youth	98	The Constitution	170
Advertising	109	Governments & Economic Systems	202
Beliefs	138	Birth of Modern Europe	208

S-26 DISTINGUISHING RELEVANT FROM IRRELEVANT FACTS

Principle: Critical thinking requires sensitivity to the distinction between those facts that are relevant to an issue and those which are not. Critical thinkers focus their attention on relevant facts and do not let irrelevant considerations affect their conclusions. Furthermore, they recognize that a fact is only relevant or irrelevant in relation to an issue. Information relevant to one problem may not be relevant to another.

Application: When discussing an issue, solution to a problem, or when giving reasons for a conclusion, students can practice limiting their remarks to facts which are relevant to the issue, problem, or conclusion. Often students assume that all information given has to be used to solve a problem. Life does not sort relevant from irrelevant information for us. Teachers can encourage students to make a case for the relevance of their remarks, and help them see when their remarks are irrelevant (*How would this fact affect our conclusion? If it were false would we have to change our conclusion? Why or why not?*)

Students could read a chapter of text or story with one or more issues in mind, and note relevant details. Students could then share and discuss their lists.

Another technique for developing students' sensitivity to relevance, is to change an issue and compare what was relevant to the first issue to what is relevant to the second.

Lesson plans in which the strategy is used:

	Page		Page
Do Me a Favor	76	Questions	112
Viewpoints	89	The Scapegoat	119
Advertising	109	Making Models: The Atom	240

S-27 MAKING PLAUSIBLE INFERENCES

Principle: Thinking critically involves the ability to reach sound conclusions based on observation and information. Critical thinkers distinguish their observations from their conclusions. They look beyond the facts, to see what those facts imply. They know what the concepts they use imply. They also distinguish cases in which they can only guess from cases in which they can safely conclude. Critical thinkers recognize their tendency to make inferences that support their own egocentric or sociocentric world views and are therefore especially careful to evaluate inferences they make when their interests or desires are involved. Remember, every interpretation is based on inference, and we interpret every situation we are in.

Application: Teachers can ask students to make inferences based on a wide variety of statements and actions. Students, for example, can make inferences from story titles and pictures, story characters' statements and actions, as well as their fellow students' statements and actions.

Sometimes texts will describe details yet fail to make or have students make plausible inferences. The class could discuss such passages. Or groups of students might suggest possible inferences which the class as a whole could then discuss and evaluate.

Students should be encouraged to distinguish their observations from inferences, and sound inferences from unsound inferences, guesses, etc.

Teachers can have students give examples, from their experience, of inferring incorrectly, and encourage them to recognize situations in which they are most susceptible to uncritical thought. The class can discuss ways in which they can successfully minimize the effects of irrationality in their lives.

Lesson plans in which the strategy is used:

	Page		Page
Jobs	79	Birth of Modern Europe	208
Language	144	What's in the Bag	227
Spanish California	150	Weather	232
Sojourner Truth	157		

S-28 SUPPLYING EVIDENCE FOR A CONCLUSION

Principle: Critical thinkers, interested in the free exchange of ideas, are comfortable being asked to describe the evidence on which their conclusions are based (rather than finding such questions intimidating, confusing, or insulting). They value reaching conclusions based on sound reasoning (rather than, say, convenience or whim). They realize that unstated, unknown reasons can be neither communicated nor critiqued. They are able to cite relevant and sufficient evidence to support their conclusions.

Application: When asking students to come to conclusions, the teacher should ask for their reasons. (*How do you know? Why do you think so? What evidence do you have?* etc.) When the reasons students supply are incomplete, the teacher may want to ask a series of probing questions to elicit a fuller explanation of student reasoning (*What other evidence do you have? How do you know your evidence is true? What assumptions are you making? Do you have reason to think your assumptions are true?* etc.)

Lesson plans in which the strategy is used:

	Page		Page
The Fun They Had	76	Columbus	161
Language	144	Weather	232
Sojourner Truth	157		

S-29 RECOGNIZING CONTRADICTIONS

Principle: Consistency is a fundamental ideal of critical thinkers. Critical thinkers can recognize when two claims are contradictory. They strive to remove contradictions from their beliefs, and are wary of contradictions in others. Fairminded thinkers judge like cases in like manner. Perhaps the most difficult form of consistency to achieve is that between word and deed. Self-serving double standards are one of the most common problems in human life. Children are in some sense aware of the importance of consistency ("Why don't I get to do what he gets to do?") They are frustrated by double-standards, yet are given little help in getting insight into them and dealing with them.

Application: When discussing conflicting lines of reasoning, inconsistent versions of the same story, or egocentric reasoning or behavior, the teacher can encourage students to practice recognizing contradictions. (*What does x say? What does y say? Could both claims be true? Why or why not? If one is true, must the other be false?*) The teacher may introduce the idea of contradiction with a simple example, such as "*Can a light be on and off at the same time?*" After students have discussed similar examples, they could talk about how those examples are like and unlike other contradictions (and apparent contradictions).

Sometimes language arts stories illustrate contradiction between what people say and what they do. The teacher could use questions like the following: *What did he say? What did he do? Are the two consistent or contradictory? Why do you say so? What behavior would have been consistent with his words? What words would have been consistent with his behavior?*

History texts often confuse stated reasons with reasons implied by behavior. For example, some texts said that one of the major reasons the Mexican government abolished the mission system in California was that it was cruel to Native Americans. The text then mentioned several ways in which Native Americans were worse off after the missions closed. Students could discuss such examples.

Lesson plans in which the strategy is used:

	Page
Spanish California	150
Columbus	161
Countries of Eastern Europe	196

S-30 EXPLORING IMPLICATIONS AND CONSEQUENCES

Principle: The critical thinker can take statements, recognize their implications (i.e. if x is true, then y must also be true), and develop a fuller, more complete understanding of their meaning. He realizes that to accept a statement he must also accept its implications. By following out the implications of subtle changes in a story, or instance of reasoning, critical thinkers see how such changes can affect meaning, often in significant ways.

Application: The teacher can ask students to state the implications of material in student texts, especially when the text materials lack clarity. The process can help students better understand the meaning of a passage. The teacher can suggest, or have students suggest, changes in stories, and then ask students to state the implications of these changes and comment on how they affect the meaning of the story. *What does this imply/mean? If this is true, what else must be true? What were, or would be, the consequences of this action, policy, solution? Are the consequences desirable? Why or why not?*

Teachers can have students explore the implications and consequences of their own beliefs. During dialogical exchanges, students can compare the implications of ideas from different perspectives.

Lesson plans in which the strategy is used:

	Page		Page
The Fun They Had	76	Spanish California	150
Jobs	79	Columbus	161
Do Me a Favor	84	Gandhi	182
The Lonely Silence	94	Countries of Eastern Europe	196
News	102	Government & Economic Systems	202
Advertising	109	Birth of Modern Europe	208
The Scapegoat	119	Cool It	220
People and Earth	133	Polar Ice Caps	225
Beliefs	138	Weather	232

S-31 REFINING GENERALIZATIONS

Principle: One of the strongest tendencies of the egocentric, uncritical mind is to see things in terms of black and white, "all right" and "all wrong." Hence, beliefs which should be held with varying degrees of certainty are held as certain. Critical thinkers are sensitive to this problem. They understand the relationship of evidence to belief and so qualify their statements accordingly. The tentativeness of many of their beliefs is characterized by the appropriate use of such qualifiers as 'highly likely,' 'probably,' 'not very likely,' 'highly unlikely,' 'often,' 'usually,' 'seldom,' 'I doubt,' 'I suspect,' 'most,' 'many,' and 'some.'

Critical thinkers scrutinize generalizations, probe for possible exceptions, and then use appropriate qualifications. The critical thinker is not only clear, but also *exact* or *precise*.

Application: The teacher can encourage students to qualify their statements when they have insufficient evidence to be certain. By asking for the evidence on which student claims are based, and encouraging students to recognize the possibility that alternative claims may be true, the teacher can help students develop the habits of saying "I'm not sure," and of using appropriate probability qualifiers.

When generalizations are made or discussed, the teacher could ask students for counter examples. The class can then suggest and evaluate more accurate formulations of the claim. *"Is this always the case? Can you think of a time when an x wasn't a y? Given that example, how could we make the claim more accurate?"* (*Sometimes* .... *When this is the case*, that happens.... It *seems* that ....).

Lesson plans in which the strategy is used:

	Page		Page
Parts of Speech	72	People Change the Earth	191
The Lonely Silence	94	Countries of Eastern Europe	196
Language	144	The Birth of Modern Europe	208
Spanish California	150	Rubber Bands	229
Sojourner Truth	157	Ah Chute	237

The analytical vocabulary in the English language, with such terms as 'assume', 'infer', 'conclude', 'criteria', 'point of view', 'relevance', 'interpretation,' 'issue', 'contradiction', 'credibility', 'evidence', 'distinguish', enables us to think more precisely about our thinking.

5

Introduction to Remodelling Language Arts Lessons

Introduction

A critical thinking approach to language arts instruction, with its emphasis on helping students understand the *logic* of what they study, can provide a strong unifying force in all of the basic dimensions of the language arts curriculum: reading, writing, language, grammar, and appreciation of literature. It is rare to find this unifying stress in most language arts textbooks, unfortunately. As a result, the emphases in reading, writing, language, grammar, and literature do not "add-up" in the minds of students. They don't recognize common denominators between reading and writing. They don't grasp how words in language have established uses and so can be used precisely or imprecisely, clearly or vaguely. Their lack of understanding of language in turn undermines their clarity of thought when reading and writing. By the same token, grammar seems to students to be nothing more than an arbitrary set of rules. They don't generally come to learn how the basic functions of parts of speech dovetail with basic functions in reading and writing.

Proper instruction in critical reading helps students to write critically, and both of these reinforce the need to analyze critically the uses of words and phrases. Grammar itself, though it sometimes contains arbitrary rules and conventions, has a basic logic to it that can give students additional insights into reading, writing, and language. Let's consider each of these dimensions individually.

Reading

Reading is often taught as if it were simply the mechanical skill of saying written words aloud or to oneself. In fact, reading is a critical thinking process by means of which we constructively infer the meaning of what we read. The expression critical reading is in fact redundant. Students need to grasp as soon as possible the logic of reading: how it involves entering into an imagined dialogue with the writer, asking and answering questions that help us construct intended meanings as we relate them to our own thoughts and experiences.

Writing

Writing, like reading, is often approached as if it were essentially the mechanical skills of tracing or forming characters, letters, and words with a pen or pencil, using capitals and periods, indenting paragraphs, etc. But of course, like reading, writing is in the proper sense a critical thinking process by which we express or communicate meanings in graphic form. Writing tends to be 'practiced' by copying sentences, completing or writing sentences; seldom by writing paragraphs or essays. Most writing practice has no real purpose. Students need to grasp as soon as possible the logic of writing: how it involves selecting possible meanings and expressing them with sensitivity to whether our intended audience will be able to understand what we mean from what we said.

This presupposes that we learn to distinguish between sentences which are clear and precise and those which are vague and imprecise. It presupposes that we develop sensitivity to what our sentences imply and assume, when they are inconsistent with other sentences, when we need to give an example to illustrate our meaning, when we need to elaborate or support our meaning in some way, how we can best show the structure of our ideas.

Language

Language, like reading and writing, should be taught as having a logic, as being a set or system of symbols that need to be used in a more or less uniform way to convey our meaning. From the outset, students need to develop a sensitivity to clarity and precision of language usage. They need to learn that we always have a choice within language of a variety of related words, each of which has nuances that distinguish it from other words.

Grammar

Grammar, like reading, writing, and language in general, has a logic which, when understood, helps us use language to convey clear and precise meanings more effectively. For example, the basic grammatical structure of a sentence correlates well with the structure of a clear communication. There must be something that we know ourselves to be talking about (the subject), and something that we say about it (the predicate). As we add more words to qualify the subject or the predicate, we make the sentence more precise and specific. All parts of speech can be understood as qualifiers of the subject or the predicate. Students can understand them as devices for making clearer either what we are talking about, or what we say about it.

As students understand the logic of grammar, they can use that understanding to grasp better the logic of reading, writing, and language in general. All four aspects - reading, writing, grammar, and language - have structure that can be understood better if we learn what it is to be clear and precise in the construction of meanings. The intellectual standards of clarity and precision should be integrated into all language arts instruction. They help to unify that instruction, making it more effective. Students then begin to recognize early that they can command language rather than to be mastered by it, that they can use it to accomplish their purposes and ends. They learn to recognize that this command comes through respecting the richness of resources available in the grammar and words of a language.

Literature

As soon as possible, literature should be approached as writing that expresses ideas that are of significant interest, that require us to think reflectively, to compare our own experiences with the imagined experiences of others, to be amused, and to learn about ourselves and others. Unfortunately, most of the reading material available to most teachers lacks literary worth. Stories are often bland, and filled with unrealistic and underdeveloped characters. It is difficult to teach appreciation of literature without good literature.

Occasionally, however, readers have lively, interesting selections. These should be taken full advantage of. Teacher's notes often fall short of doing so. They present students with the main point of the selection, rather than having students discover it for themselves. Supplying the theme, or key concepts undermines students' confidence in their ability to think for themselves. Sometimes, text writers mistake the main point of selections, further confusing students.

Whatever the quality of selections, we believe students can best develop their sense of good vs. poor literature by frequently evaluating what they read. We encourage teachers to question students about particular selections (Did you like it? Was it interesting? Were the characters realistic?); literary devises (Why did the author choose this point of view rather than another? What would have been lost by using another? Would anything have been gained? Why was flashback used? What effect did it have? Could that effect have been achieved otherwise?), as well as periodically comparing selections read over time (Which were your favorites? Least favorites? What did the favorites have (lack) that makes you prefer them?) The teacher could make an interdisciplinary connection by having students evaluate other writings (other texts, books used for research, books read for interest, news articles).

When providing discussion questions for individual selections, texts often scatter the questions thereby discouraging extended purposeful discussion of the value of the author's ideas. Teachers notes will recommend a question or two on key issues, then move on to some other questions, occasionally touching on and then abandoning the basic questions throughout the lesson. Students don't pursue the ideas at length, bring the various aspects into discussion, or organize their thoughts into a coherent whole. They are left with idea fragments, rather than a clear whole picture. We recommend that discussion questions be reordered to bring together questions on like topics, and that discussion be extended.

Texts often begin fostering dialogical thought by having students consider stories from points of view other than the narrator. We recommend, again, that such discussions be extended and integrated into discussion of the main point. Students can then gain a fuller idea of each perspective, by comparing, and a more fairminded view of the main issue, by assessing, reconciling, and integrating the various perspectives.

A similar fragmentation of discussion occurs with questions asking students to describe story characters. Usually the questions ask students to describe or evaluate characters based on single actions. They do not require students to put the pieces together and develop a complete integrated description which takes all of the behavior and character's inner world into account. Such treatment leads to fragmentation and superficial understanding of characterization.

Texts often inadvertently foster separation of operational vs. representational beliefs by setting up unreasonably false ideals and then leading students to condemn characters who fail to live up to them. Texts often oversimplify situations, problems, and issues. Kindness, goodness, patience, and generosity are presented as easy traits to acquire. Texts fail to address reasons for being otherwise, and the difficulty of change.

Parts of Speech

(Language Arts - 4th Grade)

Objectives of the Remodelled Plan

The students will:

- through Socratic discussion, exercise independent thought to discover the logic of sentence structure and parts of speech for themselves
- begin to recognize parts of speech by understanding their functions within sentences
- avoid the oversimplified view of nouns presented in their texts

ORIGINAL LESSON PLAN

Abstract

The first lesson, "The Two Parts of a Sentence," starts with a chart that divides three simple sentences into subject and predicate. The discussion explains that the subject tells who or what the sentence is about, and the predicate tells what the subject does or is. After this clarification, the class does oral and written exercises dividing sentences into subject and predicate.

In the second lesson, "Nouns," students use the 'test questions,' "Do you see the __? Do you see two _?" to identify nouns. They are told that any word which has singular and plural forms which can complete the test sentences is a noun. They are asked how they could test a word to see whether or not it is a noun; to give plurals for a list of singular nouns; to use singular nouns in the subject to complete sentences; to use plural nouns in the subject to complete sentences (first orally, then in writing.) The other parts of speech lessons occur in later lessons spread throughout the text.

from *Exploring in English 4* by John S. Hand, et al.
Laidlaw Brothers. © 1975. pp. 56-58, 132-133, T15,
T76.

Critique I

We have broken up the critique and remodel into two parts, one for each original lesson. The first teaches 'subject/predicate,' the second introduces parts of speech.

Our approach to grammar encourages students to recognize the underlying logic of grammar. This logic dovetails well with the writing skills needed to construct a grammatical sentence, a paragraph, or a well organized, logically progressive essay. These same skills also establish or reinforce the thought patterns necessary for critical thought. We believe, in other words, that well designed grammatical instruction can re-enforce critical thinking principles, and vice versa.

Dividing sentences into subject and predicate is an excellent starting point for analyzing sentence structure and parts of speech. Since the class examines whole sentences, they must observe the relationships between the subject and predicate to divide the sentences. This division also builds a foundation for later distinctions between parts of speech, because every word or phrase we add to the sentence modifies some other word in either the subject or the predicate. Furthermore, division of sentences into subject and predicate can help students clarify claims.

The main weakness in this lesson is that it doesn't allow students to work through the logic of the subject/predicate relationship for themselves. The lesson starts with a chart that breaks three simple sentences into two parts, clearly labeled subject and predicate. Students get the labels first, and then have those labels defined and illustrated. We recommend that this process be reversed. Students could first uncover the subject/predicate pattern, and then learn the appropriate labels.

The following lesson plan is a specific example of what we mean by fostering understanding of grammatical logic, rather than memorizing mechanical recognition processes. If the student discovers these grammatical distinctions for herself, we increase her understanding and encourage her to think for herself.

Strategies Used to Remodel

S-1	exercising independent thought
S-19	engaging in Socratic discussion
S-7	transferring ideas to new contexts

REMODELLED LESSON PLAN I

Before opening the book to this lesson, the class can conduct an exercise that not only uncovers the subject/predicate relationship, but also uses the focus of the sentence as the basic unit of grammar. The teacher could write a simple sentence on the board. A good first sentence would be a simple subject and intransitive verb like, "Birds sing." To encourage analysis of the main sentence parts, the teacher could ask questions like: Which word tells you what is being talked about? Which word tells what is being done? ***S-1***

Have students divide a few more sentences, each one a little longer. If this process bogs down, the teacher could model the distinction for a few sentences until some students catch on. Keep questioning as you go, to stimulate clarification through dialogue. ***S-19*** When the distinction has become clear, the class will be ready for the subject/predicate exercise in the text (pp. 104-105).

After working through the lesson in the text, return to the simple sentences on the board. Take the original example, "Birds sing." Ask students questions like: How can we make the sentence longer? What words can we add to this sentence? How can we make it give us more information? How can we make this sentence tell us more about the birds and their singing? What does each addition tell us about? What question does each answer? Which birds? What about their singing? Singing what? Singing how? How does adding these words change the meaning of the sentence? If students need help, give them some examples like, "We could say, 'Blue birds sing.' or 'Blue birds sing when they are happy.'" Show them how additional words make the sentence more precise, by excluding some possibilities.

Subject	***Predicate***
Birds	sing.
Blue birds	sing.
Three blue birds	sing.
Three blue birds	sing together.
Three blue birds	sing together on the roof.

As each word or phrase is added, ask questions like, "What does the new word tell us about? (The birds. The subject. It tells us what color the birds are.) What does the word 'three' tell us? (More about the birds. More about the subject. How many birds there are.) What word does the word 'together' explain, about the birds, or about their singing? (Sing. The predicate. It tells something about how they sang, what they were doing when they sang.) What does this phrase modify? (The predicate. Sing. It tells where the birds sang.)

If the class exhaustively expands a couple of the sentences in this manner, it will become clear to them that every word or phrase they add to the basic sentence modifies either the subject or the predicate. Every additional word or phrase makes the sentence more precise. This activity also sets the foundation for later lessons teaching specific parts of speech. The teacher could strengthen student comprehension of the logic of grammar by comparing the logic of sentences to that of a well constructed paragraph or essay. ***S-7***

Critique II

The second lesson starts to teach the parts of speech in a fragmented, mechanical way that weakens the unit's original focus. Instead of building on the function of nouns within the sentence, it reduces the subject to a mechanical two sentence test that makes the definition of 'noun' too narrow to be generally useful. The other parts of speech lessons are scattered through the text. Every one or two units, students cover another part of speech. Unfortunately, this tends to add to the fragmented quality of the parts of speech lessons. Each part of speech is taught in isolation, as a feature of individual words, rather than in relation to one another, as a feature of function.

This lesson emphasizes repetition over understanding, by simply having students repeat the test. Students need to learn to distinguish parts of speech, not memorize a rule. Giving them practice describing and using the test does not foster the ability to make the distinction, or understand the concepts 'noun,' or 'parts of speech,' in terms that make sense to the student. Again, it turns a skill of understanding into a mechanical skill.

The test itself is misleading, since not all nouns satisfy the conditions it sets. More importantly, part of speech is not a characteristic of words themselves, but of their function within a sentence. Furthermore, by only pointing out those nouns which are in the subject, the lesson fosters the idea that nouns occur only in the subject. Instead, students should learn to identify nouns wherever they occur. We recommend, then, that the teacher model the distinction (explained below) and correct students mistakes when they try to apply it.

Strategies Used to Remodel

S-6	avoiding oversimplification
S-10	clarifying ideas

S-31	refining generalizations
S-1	exercising independent thought

REMODELLED LESSON PLAN II

Begin the lesson with 15 or so sentences on the board. (They could be the students', sentences students find in books, your own, or some combination. Some should have two or more nouns. Both singular and plural forms should be represented, as well as nouns functioning as objects or in prepositional phrases, thus avoiding the idea that nouns function only as subjects. ***S-6***) Put the headings "Nouns" and "not Nouns" to the side.

Explain that the class will learn about one kind of word, or *part of speech*. Model the concept 'noun' for the class by underlining nouns, and crossing out the other words, for five or so sentences, explaining, as you go, "In this sentence, this *is* a noun. This is *not*." Then have the students help you make the lists under the headings, telling you which words to put under each and why they think each word belongs there. ***S-10*** Students should begin to say such things as, "That is the thing that is being talked about. That is the word that is doing or being done to in the sentence. (Nouns) That is what the subject does. (Verbs) That tells us the color of the subject. That tells us more about the subject. (Adjectives)" Have the class find the rest of the nouns in the list of sentences. If they fail to correct each others' mistakes, draw their attention to them. Whenever possible, compare the words in question to similar words already grouped. (You may want to allow students to put proper nouns with nouns without correction. You may also want to supply some of the names of the other parts of speech without emphasizing them.)

Students may then think of more nouns for the noun list, or look through their writings or books for examples. It might be fruitful to stress the flexibility of words. Use sentences wherein the same word functions as two different parts of speech. Have students look up words that each function as more than one part of speech. Students could then list different uses of each.

When students have had sufficient practice, the class may discuss what nouns have in common. Encourage them to test their generalizations by trying to find counter-examples, and, if necessary, revising their claims. ***S-31*** In some cases their generalizations may be nearly always true. If so, this could be pointed out. If they make a serious mistake which they fail to correct, you may want to supply a counter-example. (When the class has covered other parts of speech, you may want to have them repeat this discussion.)

The teacher could put sentences on the board which are missing nouns and have students discuss what words could and couldn't be used to complete them and why. ***S-1***

Students could be required to bring a list of at least five more sentences with the nouns marked, as an assignment. The lesson could be extended by having students see if they can group the words in the 'not noun' list.

The Fun They Had

(Language Arts - 4th Grade)

Objectives of the Remodelled Plan

The students will:

- exercise independent thought by determining the story's main point for themselves
- practice fairmindedness by shifting to an unfamiliar perspective to clarify and contrast their concepts of and attitudes toward 'school,' 'teacher,' and book' with that of the characters
- use critical vocabulary such as 'infer,' 'assume,' 'perspective,' and 'conclude'
- explore the consequences that a person's place in time has on his perspective

ORIGINAL LESSON PLAN

Abstract

This science-fiction story is about Margie and Tommy, two children living in the year 2155, who discover an old book about school in the 20th century. Although Margie finds the old ways strange, she is envious of the fun students used to have learning from human teachers instead of machines, and being with other children instead of alone at home.

The lesson begins with a discussion of what it means to be 'old-fashioned.' Students then read the story and make inferences from context clues. Among the inference questions, are ones which require them to figure out the meanings of invented terms. Other questions require students to agree or disagree with story characters' statements, relate their own feelings about events in the story, and locate details. After the story has been reread, students review with the teacher what schools of the past were like, answer questions about the story (distinguishing when answers are stated or implied), and debate whether schools of the future will be superior to present schools. Some activities focus on categorizing the story as science fiction.

from *Lanterns*, Marjorie Seddon Johnson, et al.
American Book Co. 1977. pp. 24c-32b

Critique

The main strength of this lesson lies in using material which encourages students to take another point of view. Also, some of the questions develop critical thought by requiring students to make inferences from story details. The text questions, however, miss the point of the story, and distract students from considering it.

Confusion

The discussion of the concept 'old-fashioned' is ill-timed at best. Even if that were the key concept of the story, discussing it at the beginning takes a lot of the punch out of the story. The lesson 'Concept', *"What is up-to-date now may seem old-fashioned in the future,"* misses the point. The story is less about oldfashionedness than about how Margie's attitude about our kind of schools differs from that of many students today. It is a story about differences in perspective.

Some of the inference/conclusion questions and suggested answers are misleading. For instance, when Margie has too hard a time with her geography, her parents call a repairman who examines the teacher and fixes it. One section has teachers ask, *"In 2155, when pupils don't learn what they are supposed to, who is blamed, the pupils or the teacher? (the teacher) How do you know? (The inspector is sent for to fix the teacher. Margie isn't scolded.)* " The inference that when students of the future do poorly in school, they are not held responsible, is absurd. Had nothing wrong been found with the machine, Margie would have been held responsible. The teacher was simply the first place to look.

The text asks students how they can tell that the teacher is a machine, and answers that it is inferred, when, in fact, it is directly stated. Similarly, the answer to the question, "*Why do you think the inspector thinks Margie will do fine?* " is given explicitly in the text.

Missed opportunities

The text fails to take full advantage of the strengths of the story, and many of the suggested questions. First, it doesn't have students explore Margie's point of view, or compare it to their own. It doesn't have students analyze key concepts in the story, such as 'school,' or 'good teacher.' The story also provides an opportunity for discussion of the relationship between experience, perspective, and use of language. The characters use a number of expressions such as 'regular book,' differently than we do. Such uses of language could be used to develop students awareness of how different experiences lead to differences in what is considered 'regular,' 'normal,' 'comical,' or 'weird.'

In many instances, students could learn or practice using critical vocabulary. The exercises which require students to distinguish whether a fact is stated or unstated, is a missed opportunity to have them practice using 'inference.' Students can also use critical vocabulary to make the reasoning involved in the inferences, and the beliefs of the characters more explicit.

Strategies Used to Remodel

S-1	exercising independent thought
S-3	exercising fairmindedness/reciprocity
S-10	clarifying ideas
S-20	practicing dialogical thinking
S-23	using critical vocabulary
S-30	exploring implications and consequences
S-28	supplying evidence for a conclusion

REMODELLED LESSON PLAN

When students have read the story through once, the teacher can begin the lesson by asking such questions as, "What is the story about? What is the author's point? ***S-1*** What idea is he trying to get across? What is the point of view of the main character?" When discussing Margie's perspective, use questions like the following: What facts does Margie think about when she thinks about schools of the past? What does she ignore? What concepts or ideas are important to her? Are they the same as or different than the concepts you find most important? How accurate is Margie's view? Defend your answer. Do you agree that you are luckier than Margie? Why or why not? Have students compare their own and Margie's assumptions, experiences, inferences, and values. How could someone argue that Margie's school is better than our schools? Worse? ***S-3***

To further explore Margie's perspective, students could discuss words from the story, such as 'book,' 'teacher,' etc. ***S-10*** Consider asking, "What is Margie's idea of a good teacher? What qualities should a teacher have? What surprised Margie about teachers of the past? Why? What are the advantages and disadvantages of human vs. machine teachers? How is Margie's idea of what 'school' means different from yours? Alike? Does Margie really have 'school,' or should it be called something else? Why?" ***S-20***

The class could also discuss differences between how the characters talk about school and teachers, and their own expressions, e.g., 'my teacher is broken' vs. 'my teacher is sick,' 'regular book,' 'regular teacher,' 'funny schools,' 'have school today,' 'go to school,' etc. ***S-10*** Students could discuss why the children in the story use terms differently than they do. ***S-30***

The class could discuss Margie's values. For instance, though she thinks that her teacher is better, she thinks old schools are better because of the chance to be with other children. Learning is not the most important part of school to her. Students could expand discussion about the superiority of working with other students.

The teacher using the inference questions provided in the text could have students practice using such terms as 'infer,' 'assume,' and 'conclude.' ***S-23*** (For example, "Why did Margie assume that human teachers taught in children's homes? Was this fact stated or implied? Why did the repairman conclude that Margie would do better?")

If using the 'Comprehension Skills' section at the end, the teacher could ask students to support those answers not stated in the story, and explain their reasoning. ***S-28***

Macro-practice is almost always more important than micro-drill. We need to be continually vigilant against the misguided tendency to fragment, atomize, mechanize, and proceduralize thinking.

Jobs

(Language Arts - 4th Grade)
For original lesson, see appendix.

Objectives of the Remodelled Plan

The students will:

- learn to construct a logically progressive composition by adhering to a basic theme topic
- explore and clarify the relationship between a society and the work generated by that society
- through Socratic discussion, distinguish between different concepts of 'work,' 'job,' and 'chore'
- discuss the requirements of a clear, well ordered paper, thereby exercising independent thought

ORIGINAL LESSON PLAN

Abstract

This composition unit consists of four lesson plans grouped around the concept 'jobs.' For the first, students read an Indian chant listing trades open to male adult Kwakiute Indians of British Columbia and Vancouver, Canada. The text suggests that the class discuss parents' jobs and then paint or make a collage mural depicting jobs.

For the second lesson, students read a poem about a father and child taking care of their car. The text asks students to discuss and act out what they would have to do to accomplish a specific task.

For the third lesson, students read suggested interview questions, and divide into groups to plan and execute interviews with adults about their jobs.

Finally, students study two pictures of housework; one set in the present and one set in the future. The class is asked to discuss and write about the differences between a job as it is done now and how it might be done in the future.

from *Exploring in English 4* by John S. Hand, et al.
Laidlaw Brothers. © 1975. pp. 28-35, T31-33. Used
with permission.

Critique I

We chose one of this text's several composition units because of the intimate connection between writing and thinking skills. A student's ability to think critically is clearly reflected in his writing, and improved by writing practice. The critical thinker learns to incorporate the answers to questions which critical readers would ask, and can use writing to explore and analyze a subject. Though not all composition assignments need focus explicitly on critical thinking, we believe that at least one should do so. The argumentative essay is one form this can take; the analytical essay, another.

The original unit (in fact, all of the composition units in this text) fails to maximize the critical thinking potential inherent in classroom writing development. Little writing is done, no rewriting. The discussions are not related to each other. More than one concept of 'job' is used, yet the concepts are not distinguished or their relationships explored. The word 'job' is used, though 'work' would better fit all of the topics covered.

There are many ways to better unify this unit to include active exercises in critical thought. One possibility combines a heavier emphasis on the logical progression of a composition and stronger questioning within class discussion to stimulate independent critical thought about and analysis of jobs or work. We recommend that the first three lessons each emphasize an aspect of the concept, and the last synthesize them into a well structured composition. Each of our critiques and remodels covers one lesson.

Strategies Used to Remodel

S-19	engaging in Socratic discussion
S-1	exercising independent thought
S-27	making plausible inferences
S-30	exploring implications and consequences
S-13	raising and pursuing root questions
S-8	developing one's perspective

REMODELLED LESSON PLAN I

In our remodel, we suggest that each lesson produce a separate paragraph which will be unified into a single composition analyzing the concept 'job' or 'work.' The addition of more writing practice to this four part unit would unify the remodelled unit's objectives of emphasizing Socratic discussion, clarifying ideas, and fostering independent thought with writing development practice. The class discussion times could be used to generate student discussion of specific aspects of the concept 'work.' ***S-19*** Student contributions could be listed on the board during discussion to emphasize the process of topic analysis. A copy of this list could be provided to the child for reference. This copy could enable students to build their writing assignments on the basis of their own active participation in the discussion. ***S-1*** It could also encourage parent participation, by providing a take home guideline for the assignment. If students understand the objective of the remodelled unit, they will be better prepared to combine the separate assignments. Before they start to write the individual assignments they could establish a 'theme' statement or question to guide them in writing their short paragraphs.

A sample set of discussion/assignments could be: Lesson 1: What is work? Why is it important to society? Lesson 2: What is my experience of work? How is it important to me? How do I feel about it? Lesson 3: What kind of work is done by adults I know? How do they feel about it?

Here are some specific suggestions for possible text related questions which could trigger student participation: Why do these people do these kinds of work? What does this tell you about the way these Indians live? ***S-1*** What other work do you think these Indians do? How did they get their food, and shelter? For whom do they work? ***S-27*** The teacher could have students compile a list of modern jobs they know of, and ask questions like the following: What does this list tell us about our society? ***S-30*** Where do we get our food and shelter? ***S-13*** How many jobs are there between a member of the tribe and his food source? Between you and your food source? What do most of their jobs have to do with? Do most of our jobs have to do with providing necessities? Students could raise other points of comparison between the list in the chant and jobs in our society. ***S-8***

The teacher might point to specific jobs on the lists and ask questions like the following: What has to be done in this job? Why? What did the person who does this job have to learn before she could do it? What would happen if this job weren't done? ***S-30*** What other jobs does it depend on? What other jobs depend on this job?

This type of discussion should generate multiple possibilities for writing assignments.

Critique II

The sense of 'job' used in the second lesson is synonymous with 'chore.' To add greater unity to the disparate parts of this units, students could clarify the different senses and terms, and relate them to their own experiences. This section could be focussed on students' work.

Strategies Used to Remodel

S-10 clarifying ideas
S-24 distinguishing ideas

REMODELLED LESSON PLAN II

The teacher could start the discussion list with students clarifications of the concepts 'job,' 'work,' and 'chore.' Here are some trigger questions. What is a job? Work? Is work the same thing as a job? How about chores? How are work, jobs and chores the same? Different? What are the opposites of work, jobs and chores? If I say that you have such and such a job, what does that imply? ***S-10*** What do you think of when you think of the word 'job?' Do you have to get paid, for it to be a job? (Explore other related concepts: boss, pay, salary, wages, vacation.) Do most jobs finish an entire action from start to finish or are they just a part of a whole job? Are chores jobs? Is homework a job? What completed jobs are homework or chores a part of? Relating the discussion to jobs or work that students do gives them a chance to apply this part of the unit to specific examples from their own experience. It also allows them to compare how the word is used in each lesson. ***S-24***

The writing assignment for this section could be for the students to write about another kind of work; a 'job' they do, why, and what they think about it, or how chores relate to other forms of work.

Critique III

This lesson, on interviewing adults, is a little too detailed. Too much is done for the student. Giving students a list of questions for an interview eliminates the need to think up interview questions. The text doesn't encourage students to prepare follow up questions. Also, the interview and questions have no guiding purpose, do not fit into the rest of the unit. The way 'job' is used in this lesson in the most generally used meaning: work done for an employer for pay.

Strategies Used to Remodel

S-13	raising and pursuing root questions
S-1	exercising independent thought

REMODELLED LESSON PLAN III

This section presents an excellent opportunity to explore adult attitudes about 'jobs' or 'work.' ***S-13*** The groups could make their own lists of discussion questions to outline an interview based paragraph. ***S-1*** The initial discussion could be used to shift the focus of the assignment away from the question list in the text and towards an interview that would support the class discussions for this unit. For instance, sharing interviews on topics like "What does work mean to you?" or "What makes a job a good job?" could provide the class with several views. The class, as a whole, could compare different perspectives on the concepts.

If locating an adult who is willing to be interviewed proves difficult, the students could interview each other or pick a related aspect of the concept on to write research.

Critique IV

This lesson (on housework in the future) doesn't sum up previous lessons. Its scope is too narrow to synthesize the material discussed about 'jobs.' 'Work' or 'chore' fits the material better than 'job' does. In the original text it was the only opportunity for any writing practice.

Strategies Used to Remodel

S-1	exercising independent thought
S-30	exploring implications and consequences

REMODELLED LESSON PLAN IV

To meet the objectives of our suggested unit remodel, we need this section of the unit for synthesizing the three short assignments into a complete composition. The teacher could use this class time to discuss what students would have to do to their individual paragraphs to rewrite them into a solid, logically progressive piece of writing. Some discussion questions could be: How can you turn your paragraphs into an essay? ***S-1*** How would you do that? Why would that suggestion help? ***S-30*** What is each section about? How are the sections related? What is your essay about? How would a reader know what it was about? What belongs in an opening paragraph? How does each paragraph relate to the rest of the essay? What can you do to each paragraph to fit it with the others? How should you end your essay? Etc.

The students could use the ideas from the above discussion to rewrite their original paragraphs so that they flow from one topic to the next, and write opening and closing paragraphs. With these outlines, students could rewrite their compositions with unity, clarity, illustration by specific example, and other specific writing development skills in mind.

Peer proof reading would be especially valuable here because it would help the writer and the reader clarify what elements are necessary for a well written paper. Perhaps groups of two or three could read each other's rough drafts before a final rewrite. It might even be helpful to have students hand in both rough and final copies to trace their thought processes and detect individual writing weaknesses. Similar units could be used later in the year for further development.

Consistency is a fundamental ideal of critical thinkers. Critical thinkers can recognize when two claims are contradictory. They strive to remove contradictions from their beliefs, and are wary of contradictions in others.

Do Me a Favor

(Language Arts - 4th Grade)

Objectives of the Remodelled Plan

The students will:

- isolate, clarify and pursue root issues regarding the exchanging of favors
- clarify such ideas as 'favor,' 'fairness,' 'selfishness,' and 'generosity' through Socratic questioning
- examine the assumptions of the main characters, and how they affect each characters' actions
- distinguish facts relevant and irrelevant to key issues
- evaluate the main characters' actions
- exercise reciprocity by considering issues and claims from the perspectives of the various characters
- recognize key differences between plays and other forms of literature

ORIGINAL LESSON PLAN

Abstract

Students read a play about favors done and owed. Liza keeps a memo-book in which she records favors she does and receives. In the beginning of the play, she agrees to take a baby-sitting job for Karen, to whom she owes a favor. When her mother reminds her of a previous commitment, she demands that her brother, Hooker, baby-sit (*"Hooker, you have to baby-sit with Bobby Winters this afternoon."*), in return for a favor he owes her. Hooker had plans to hike to see the first day of an archeological dig with his friend Neil, but finally agrees to baby-sit. Then, when the girls' various commitments for the day are cancelled, they decide that, since Hooker didn't baby-sit, he should repay his favor to Liza by taking the girls on the hike. When Liza demands the favor, Hooker convinces Liza to stop using her book. The children agree that favors will no longer be 'owed,' but done for friendship's sake.

Teachers' text develops the 'Concept' that *"People should do each other favors out of friendship and not because they would like a favor in return."* Many questions review the complex sets of causes and effects (favors returned because owed, plans changed because other plans changed, etc.) Others require discussion of the play format. The comprehension skills are cause and effect, prediction, and characterization.

from, *Lanterns*. Marjorie Seddon Johnson,
et al. American Book Co. 1977. pp. 90c-105b.

Critique

We chose this lesson for its focus on favors and friendship. The main issues raised in the play are important, and are problems within most students' experience. The lesson, however, suffers from two basic flaws: it oversimplifies complicated issues and contains a mish-mash of relevant and irrelevant questions.

Oversimplification

The play itself sets up a false dilemma, which the text questions do nothing to critique: Always agree to do favors without concern for inconvenience or whether you will ever be repaid, or be selfish, petty, and dictatorial, demanding favor for favor, insisting on being paid back no matter what the circumstances. Students are led to the 'Concept' quoted above, and led *"to see that friendship may entail helping whenever necessary - without expecting anything in return."* The text treats this statement as equivalent to the 'Concept,' though expecting a favor is not equivalent to doing favors in order to get favors. Throughout, both the play and teacher's notes unfairly push the idea that turning down a request is selfish. Besides violating students autonomy of thought, such treatment ignores a number of other reasonable positions.

In the text's view, any concern with being taken advantage of (for instance, continually doing favors, yet having your requests for favors repeatedly turned down) is selfishness. The text (like Liza) takes the phrase 'expect a favor in return' too literally, by associating it with Liza and her memo-book. One can expect that, having done favors for another, one can count on the other to do favors, without keeping track of every favor, or demanding a one-for-one return. Students who have grappled with the problem of one-sidedness shouldn't be made to feel selfish. Students should have a chance to express a range of responses to such issues as, "When should I do favors for others? Do people ever owe each other favors?"

Putting the issue in all or nothing terms leads the text to ignore important aspects present, though unexplored, in the play. For example, when Liza asks Hooker to baby-sit, she asks him to give up a hike to the *first day* of an archeological dig; a special, once-in-a-lifetime opportunity. There are, after all, big favors and little favors. In this case, she may have been asking too much. Students could discuss details which might reasonably influence a judgment about what favors should be done or returned, and evaluate Liza's literal interpretations of such expressions as: I owe you one; any time you need a favor, etc.

Also, the text questions fail to have students distinguish Liza's views or record-keeping from her obnoxious manner. Her behavior is consistently dictatorial. She demands obedience, rather than asking for favors. (*"Hooker Forbes, you listen to me! ... Not so fast! ... We want to go to Indian Mounds, too.... You owe me a favor, Hooker Forbes. And I demand that you pay me back now. Right now."*) The idea that favors should be two-way is unfairly associated with her manner.

Students do not discuss the resolution. Liza gave up keeping her book after Hooker got Karen to admit that intention to repay a favor should be accepted as equivalent to having repaid it. Neither this idea nor its possible relevance (or irrelevance) to the agreement to forget about 'owing favors' are discussed. Hence, related issues, confused in the play, are not sorted out by the text questions.

Some of the characterization questions oversimplify understanding and evaluation of characters. They usually ask about one action, and sometimes ask students to infer qualities. Explaining a character requires using many details, and understanding the totality behind the details. (*"What was the difference between the way Liza felt and the way Hooker felt? Liza was angry. Hooker didn't care."* Here, the answers shed no light on the characters. *"Who is more thoughtful, Karen or Liza? (Karen) Why? (Karen came to explain the change in situation right away. Liza just ran off without explaining Hooker's involvement.)"* Here, students are encouraged to make an inference based on insufficient evidence.)

Unintegrated discussion

Rather than pursuing issues surrounding favors (and, perhaps, having a discussion about the play format), the text questions jump around. The numerous irrelevant, trivial questions take time away from exploration of the important, real issues. Such questions include the following: *What made Liza run into the kitchen?* (Rather than asking every possible question about cause and effect, the questioner should stick with those necessary to understanding the plot or the issues.) *Did you ever have two things to do at the same time?*

Do you ever make lists or write notes to help you remember things? Can you think of any occasions when you changed your plans and it forced someone else to change theirs? Why did Karen panic? Liza? Why does the fact that Liza and Karen are Junior Scouts prove they won't slow up Hooker and Neil? Have students discuss the skills learned in scouting.

These questions are mixed with relevant questions. Students do not pursue the main issues in an integrated discussion, but occasionally touch on and then abandon the basic and related issues. Opinions on a number of issues are requested, but the ideas are not related to the main issues, nor are positions followed up. Questions don't search for reasons or underlying principles.

We suggest then, that the class more thoroughly, systematically, and fairmindedly explore the issues raised by the play.

Strategies Used to Remodel

S-1	exercising independent thought
S-10	clarifying ideas
S-13	raising and pursuing root issues
S-4	exploring thoughts underlying feelings
S-26	distinguishing relevant from irrelevant facts
S-6	avoiding oversimplification
S-9	clarifying issues and claims
S-16	evaluating actions and policies
S-3	exercising reciprocity/fairmindedness
S-29	recognizing contradictions
S-17	clarifying or critiquing text
S-30	exploring implications and consequences

REMODELLED LESSON PLAN

We have divided the remodel into the following sections: 1) Introduction; 2) Finding the main issues; 3) Exploring the issues and avoiding oversimplification; and 4) Discussion of the type of literature.

1) Introduction

Rather than beginning (as in the original) with a discussion of friendship, before reading the play, consider asking, "From the title, what is this piece about? *S-1* What is a favor? *S-10* How do favors differ from orders, demands, obligations, etc.? Why do people do favors? Does asking for or doing favors ever cause problems? What? Why?"

2) Finding the main issues

Then, when the play has been read, have students recap the story. (Here, the teacher could use some of the 'cause and effect' questions from the original.) Use questions like the following to have students state the issues between, and basic positions of, the main characters: What is this play about? *S-1* What point is the author trying to make? What issues are raised between the main characters? *S-13* When does Liza get mad at Hooker? Why? What does her anger here tell us about her attitudes and beliefs? *S-4* When does

Hooker get mad at Liza? Why? What do his anger and annoyance tell us about his attitudes and beliefs? What do you think are the most important issues raised by this play?

When students reread the play, they can note details relevant to the main issues they formulated and the reasoning of the main characters. ***S-26*** Students who want to focus on different issues, could form groups to discuss the issues of their choice. Or students could write issues as headings, and list relevant details underneath.

3) Exploring the issues and avoiding oversimplification *S-13*

To help students focus on the factors relevant to understanding and evaluating positions taken in the play, have students use the details in the play and their experience to clarify the main concepts or ideas. ***S-6***

If the main claims or issues turn, for example, on the idea of the reasonableness of the various requests (or expectations) of the main characters, those concepts could be clarified, by having students list all of the favors mentioned in the story. For each, ask whether it was a reasonable request or expectation. Have students explain their answers. ***S-10*** Have them group the favors as reasonable, unreasonable, borderline, and disputed. (Students could also propose and categorize variations, e.g., "If Liza had asked nicely ...," "If Hooker wasn't doing anything ...," "I once felt...," etc.)

Or, if the issues as stated by students, have to do with selfishness and generosity, have students similarly group the characters' reactions to requests made of them.

To further clarify the key concepts, students can discuss the factors they find relevant to their judgments. ***S-9*** "What do the groups (made above) have in common? How do they differ? Why is this example in that group? Why is that fact relevant?" Such a discussion could become a dialectical discussion if more than one point of view is expressed. If so, students could be paired or put in small groups for discussion, and main positions or points made could be shared with the rest of the class.

Questions like the following can also be used, to help students relate the issues to their own experiences: ***S-13*** Who do people ask for favors? How do you feel about asking for favors? Doing favors? Always? Sometimes? Never? Have you ever been refused a favor? Why? Have you ever refused to do a favor? Why? Is it sometimes OK to not do somebody a favor? When? Why, or why not? Have you ever felt that someone owed you a favor? That you owed someone? Why or why not? ***S-6***

The class could describe and evaluate the actions or reasoning of the main characters at various points in the play. ***S-16*** Use questions like the following: What do you think of Liza's (Hooker's) behavior in this scene? Why? What words apply to her behavior? Why? What, if anything, should she have done differently? (For each response, ask: If she *had* done this instead, what would you think of her behavior here?) What reasons could she give in her defense? ***S-3*** Why might she think this way? Is this behavior consistent or inconsistent with the rest of her behavior? ***S-29***

The teacher could also use the following questions from the text when appropriate: ***S-13*** *Do you think Liza felt good about doing favors for people?* (or rephrase as "How do you think Liza felt about doing favors?") *Do you think that Hooker was being selfish or ungrateful in not wanting to pay back Liza's favor? Why did Liza promise to do Karen a favor? Why did Liza's brother refuse to baby-sit? What made Hooker say "Boy, you have to be careful what you* *say to her"? What kind of person do you think Hooker is? Why? What kind of a person would demand that a favor be paid back? Why did Liza put the memo pad in her pocket?*

The class could also be asked whether they find the characters and their actions realistic. Have them support their claims. ***S-17***

4) Discussion of the type of literature *S-13*

The teacher could also have students discuss the type of literature this piece is, and the format of plays. Ask, "What kind of writing is this? How do you know? What do you know about plays? What do all plays have in common? Why?" ***S-1*** Have students compare plays to other forms of writing with questions like the following: ***S-30*** How are plays different from stories? How did you know Liza's and Hooker's thoughts, attitudes, and feelings? How do learn about these aspects of characters in stories? What are the differences between how stories and plays affect the reader? When might it be best to write in the play format? Story format? Discuss at length. The following questions from the original lesson could also be used: *Have you ever gone to a play and been given a program? What is usually listed in a program? Why do you think playwrights divide their plays into acts?*

Though everyone is both egocentric and critical (or fairminded) to some extent, the purpose of education in critical thinking is to help students move away from egocentricity, toward increasingly critical thought.

Viewpoints

(Language Arts - 4th Grade)
For original lesson, see appendix.

Objectives of the Remodelled Plan

The students will:

- examine the assumptions underlying various viewpoints
- use reciprocity to gain insight into opposing viewpoints, to better understand and learn from them
- distinguish relevant from irrelevant facts used within various viewpoints
- engage in dialogical discussions about particular points of view

ORIGINAL LESSON PLAN

Abstract

This lesson on viewpoints has two parts. First, the teacher reads aloud a story entitled "The Blind Men and the elephant," about six blind men who each feel a different part of an elephant, and come to different conclusions about it. Students are asked the following questions: *Why do people often feel that their opinions are the right ones? How can this attitude keep people from learning more about a subject? What advice would you give to an opinionated person? Do you think he would listen? How do you react to a person who won't listen to what you have to say? Do you always listen to what others have to say? Do you try to understand another person's viewpoint? Do you try to understand why he has a different point of view?*

An extension suggests six blindfolded students feel different parts of an object. Each writes two sentences describing it, which they read aloud. Then the teacher lists several incomplete sentences to encourage students to express different viewpoints, e.g., "*In my opinion, one way each one of us can contribute to a better world is...*" The teacher points out that answers to questions like "*Which color sweater do you like best?*" are purely opinion, there is no right or wrong answer.

In the second part, students read a short piece of nonsensical verse in which a bat and a pup disagree about whether the world is upside-down or the bat merely sees it that way. Students then distinguish two meanings for the word 'viewpoint:' Place from which one can look at something; attitude of mind. Next, students read and discuss a dialogue in which five different viewpoints about rain are expressed. Students are expected to recognize that the blind men's opinions about the elephant differed because each had different information; the people in the dialogue, differed because each had different plans for the day. Students discuss three other subjects (school holiday, pet dog, bedtime) and say what they believe the viewpoints of different people would be. The teacher then leads students to see that when arguments occur, they should attempt to understand the viewpoints of all people concerned.

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Critique I

Introduction

The subject of these lessons is valuable for teaching students to think critically by encouraging them to try to understand their own viewpoints as well as the viewpoints of others. The topic of viewpoints is very important, with implications for the academic and personal lives of the students.

Everyone has a unique perspective, or set of beliefs, parts of which are personal and unique to each individual, and parts of which are shared. No one is aware of all of his viewpoint, and rarely knows how he got it. No viewpoint is complete and perfectly consistent, it can always be improved. Since every viewpoint has some inconsistencies and contradictions, people have a tendency to compartmentalize their viewpoints, so inconsistencies and contradictions rarely conflict. Many of people's contradictions are between the beliefs they espouse and those they act upon.

Beliefs have a logic. One's viewpoint is not a collection of separate beliefs, but is a system of beliefs (see the section, "Socratic Discussion"). Each belief has a place in a viewpoint. Each presupposes some beliefs and implies others. Understanding a belief means understanding its assumptions and implications - the system of beliefs of which it is a part. Although we often disagree with viewpoints that we do not understand, we cannot justifiably do so. Before we can disagree we must know what we are disagreeing with. The viewpoints of others, even if we find we cannot wholly agree with them, probably have some merits, some strengths, that we could use to supplement, strengthen, and enrich our own. When trying to understand another viewpoint, we should try to understand why the other thinks differently.

The stories in these lessons do provide some insights into the subject, but in many ways they are inadequate. By failing to be more thorough, the text misses the opportunity to fully develop the idea of viewpoints and how they affect reasoning. They mainly focus on two reasons for differences in viewpoints: different information, as in the elephant story, and 'personal reasons' (e.g., different plans and intentions), as in the rainy day dialogue. These kinds of reasons superficially address the topic, and are not the best for developing key insights, confronting problems of clash of perspective, and finding strategies to deal with them. The lessons don't address connections between beliefs. Nowhere do they address evaluating beliefs or systems of beliefs.

Elephant Story

The story of the elephant and the blind men makes a fair beginning, as it focuses on an important source of disagreement — different information (and stubbornness). However, unlike most cases of conflicting viewpoints, the story does not adequately exemplify the ways in which interest, prejudice, and viewpoint often affect the selection, identification and interpretation of information, nor do the questions help focus on these tendencies. We tend to protect our viewpoints by only considering the strongest information in their support, while not seeing information which may weaken them. Conversely, regarding viewpoints to which we are opposed, we often look for their weakest support, while not seeing the strongest. Thus, we often do not have enough information because we do not want it, and fail to recognize alternative interpreta- tions of it. Unlike most cases, which require weighing of interpretations, judging of credibility, and so on, the blind men need only put the facts together. Also, the situation of the blind men and the elephant is too unlike most situations involving lack of information; students are unlikely to transfer the insight to themselves. The original questions in the teachers' notes (quoted in the abstract) call for yes-or-no answers from students. The way they are phrased encourages students to give the 'good person' answer, rather than having students discuss times when and reasons why they often fail to live up to the ideals emphasized in the lesson.

The discussions suggested in this lesson's extention could be improved. Discussion of the first three sentence fragments, (*In my opinion, one way each of us can contribute to a better world is .... Adults can learn something from children by.... When juding someone else, it is important to....*) could expose the logic of the beliefs expressed, looking for compatibilities and inconsistencies between various answers.

The last three suggested statements (*If I were an umpire at a baseball game, my hardest job would be.... When I look at the summer sky I see.... The most attractive color for a sweater is....*) are statements about the speaker and idiosyncratic. As the text points out, "*... many answers are purely opinion. There is no 'right' or 'wrong,' or 'better' or 'worse' judgment.*" Preference statements allow for little or no rational discussion or assessment. The subject of umpires' experiences could be used to illustrate conflicts arising from differing viewpoints (umpires as against players and fans of each team), leading students to explore the way in which points of view, purpose, and self interest can affect the responses of different people to umpires' calls. The others could be used to help students distinguish types of issues. The teacher using this lesson should be careful of the "fact/opinion distinction" implicit in these lessons.

The critique of the second lesson follows the remodel of the first.

Strategies Used to Remodel

S-25	examining assumptions
S-2	developing insight into ego/sociocentricity
S-3	exercising fairmindedness/reciprocity
S-26	distinguishing relevant from irrelevant facts
S-20	practicing dialogical thinking
S-23	using critical vocabulary

REMODELLED LESSON PLAN I

The remodelled lesson plan has been divided into three sections: 1) focuses on problems with information, 2) applies insights gained to students' lives and thought, 3) (Lesson plan II) considers actual or imagined situations of conflict arising from different points of view, examining and assessing assumptions which may be made in each perspective.

1) Information and differing viewpoints

After reading the first story, the teacher could supplement the questions from the original (in italics) with a few others: *Did any of the six blind men give an accurate description of an elephant? Why not? In what way was each man's description partly right?* What could the men have accurately said? What was each assuming? ***S-25*** *How could the men have helped one another to "see" the elephant? Why weren't they likely to do so?* Why did the men disagree? The assumptions could be discussed at length. "Do people often make assumptions similar to those made by the men in the story? Why?" ***S-2*** Students could also discuss times they thought they had the whole story, but after learning more, changed their conclusions about an event or situation.

2) Applying insights

To encourage students to apply the above insights to their own lives and experiences, the teacher could have them tell about a time two people interpreted the same situation differently. "What were the interpretations? Why were they different? Can they be reconciled? How? Why not?" If necessary, provide an example like the following: One morning I come in, and am very unfriendly to everyone. What might you conclude? Discuss how different points of view affected conclusions. Have students make assumptions explicit. ***S-25***

For an extension of the first lesson, the teacher can substitute different sentences for those in the book. It would be helpful if the class has already had discussions which brought out different perspectives or if there are school or class issues or problems to discuss. Evaluative statements provide for good topics. Students could also discuss the claims from an opposing view. ***S-3*** Students could point out specific points of agreement or disagreement, and tell how many viewpoints were expressed. Have students find assumptions in the various points of view. ***S-25*** Students could also be asked to identify information supporting assumptions and viewpoints, as well as suggest information that may have been left out. ***S-26*** Students could write and share their responses and engage in extended discussion. ***S-20*** The class could be split into discussion groups to maximize participation and allow students choice of issue. The teacher could have students record or take notes on their discussions for analysis later.

Using the recordings or notes, students could give complete statements of perspectives with which they disagree. ***S-3*** (This activity can be discussed later, and any difficulties students experienced shared.) Students can correct any misconceptions of their own ideas. They could then categorize the kinds of points of disagreement (contradictory factual claims, incompleteness of facts, questions of relevance, values, relative importance of different values, preferences, problems with words or ideas). Some students may want to map out viewpoints showing the connections between different beliefs in a perspective. (These facts and this assumption led to this conclusion. That conclusion and this other belief led to this other conclusion....) ***S-23*** Some students may find ways to reconcile some of the differences. If so, these could be discussed and evaluated. Students may want to speculate on some of the reasons for their disagreements.

Critique II

Viewpoints

As with the elephant story, the discussion about the rainy afternoon fails to get at the root of the problem since agreement is neither necessary nor of any significance. On the other hand, two of the subjects at the end of the lesson — the pet dog and bedtime — are better for our purposes, as they do illustrate vast differences in viewpoint in situations requiring agreement or resolution. This activity could more fruitfully foster critical insight (especially how interest affects viewpoints and evaluation of other's views) by extending the discussion to greater length, encouraging students to incorporate others' perspectives, evaluate arguments, etc. Other situations involving differing viewpoints could also be discussed, but should include some amount of conflict and not merely casual disagreement.

The explanation section recommends that the teacher lead students to two generalizations about conflicting viewpoints: people disagree because of personal attitudes and because of incomplete information. Both of these do contribute to conflicting viewpoints, but the list oversimplifies the problem. A viewpoint will often influence which information we look for, which facts we will emphasize or downplay, accept or reject. Students could be encouraged to recognize the tendency to select evidence which supports their perspective, while discounting evidence which may weaken it. The subjects at the end of the lesson (pet dog, for example), can be used to illustrate this. The facts which a parent may consider in deciding whether to get a dog, may seem irrelevant to the child. Self-interest often interferes with a fair consideration of the other's point of view.

The text doesn't talk about what to do besides "*impartially weighing the viewpoints of all concerned.*" Again, this is fine, as far as it goes, but is insufficient. The text gives no guidance or practice in impartially weighing viewpoints. Students do not assess information, or the ways information could be interpreted. Superficially, students are asked to consider different viewpoints (at the end) but instruction could be made more explicit by probing and evaluating the assumptions, reconciling differences, and looking for and using more complete information.

Strategies Used to Remodel

S-2	developing insight into ego/sociocentricity
S-27	making plausible inferences
S-1	exercising independent thought

REMODELLED LESSON II

3) Conflicts and difficulties in listening

Although many conflicts are obviously based on a lack of information, there are other bases for disagreement. It is not always easy to get both sides in a conflict to agree as to what is relevant to the conflict. For example, a child doesn't want to go to bed, but the child's parents do want him to go to bed. For the parents to tell the child he has school in the morning, may not seem relevant to the child. To foster insights into the children's egocentricity, the teacher could extend the last activity of the last lesson. ***S-2*** Students might use role-playing to bring out parents', neighbors', and siblings' views on the subjects given. ***S-27*** The class can describe the perspectives at length, again, comparing similarities and differences between different beliefs expressed, and discuss possible reasons for these differences.

The discussion in the first lesson can be used here, supplemented with students' experiences in giving opposing views during this activity, and that in section 2. These questions have been taken from the explanation section #1 of the original (quoted in the abstract) and rephrased to foster independent thinking, and extend discussion. ***S-1*** Why is it sometime hard to listen? Why do people have different viewpoints? (Encourage multiple responses.) Why is it often hard to understand another's view? When have you found it the hardest to listen sympathetically to other viewpoints? Why? ***S-2***

The lessons could be further extended with a discussion of how people often share many views with people around them. What beliefs do you share with your friends but not your parents? Parents but not friends? What do you share with both that other people from other places don't share. If the class has students of more than one culture, this discussion could be especially fruitful.

The Lonely Silence

(Language Arts - 5th Grade)

Objectives of the Remodelled Plan

The students will:

- exercise independent thought by discussing the story's main theme
- evaluate the main character's actions
- explore the thoughts underlying the feelings of the main character as well as examine the assumptions that may contribute to those thoughts
- exercise reciprocity by considering why characters may have felt or acted as they did
- clarify and distinguish the ideas 'disabled' and 'handicapped,' and explore the ways in which some of the characters are, or may be considered, disabled or handicapped
- discuss the sociocentricity of the assumption that difference deserves ridicule
- explore the main character's rationalizations that she uses to justify some of her actions

ORIGINAL LESSON PLAN

Abstract

The focal point of this lesson is a story about a young girl whose parents are deaf-mutes. The girl, Bina, teased about her parents when younger, is ashamed of them, and determined that her present friends won't learn about them. When she learns her mother is planning a party for her, she becomes angry and afraid, argues with her mother, and storms out of the house. Later, at the hospital where she is a candystriper, she sees a little boy, Carl, also deaf and dumb. He is scared because he doesn't know where his mother is, and no one else knows sign language. At first Bina tries to ignore him for fear of giving away her secret. Just before leaving for the day she changes her mind and calms him down by signing to him. When the nurse is impressed by her and her parents, Bina realizes that she has been more handicapped by her fears than her parents have been by their deafness.

Students first discuss self-pity, and then read the story. The skills of prediction and characterization are emphasized.

from *Moments* by Marjorie Seddon Johnson, et al.
©1977 American Book Company. pp. 178c-191b.

Critique

We chose this lesson because it provides fruitful material for having students practice evaluating actions, and discussing an example of emotional conflict. Although the specific events are not applicable to most students, the theme of being disabled by false beliefs is. Students should learn to see the ways that their beliefs affect their actions, sometimes harmfully.

Although the text takes advantage of the story to ask a few thought-provoking questions, it doesn't go far enough in exploring what is going on inside Bina. The text also misses the opportunity to have students discuss the difficulty and importance of confronting difficult problems like Bina's; Bina's self-serving thoughts while she tried to ignore Carl; the sociocentricity of the children's attitudes (for example, the assumption: Differences deserve ridicule.)

Oversimplification

The wording of many questions and suggested answers lead one to believe Bina's very character undergoes several drastic changes. [*Why did Bina hesitate before ringing the bell?... What does this tell you about the kind of person Bina was? (considerate) In what way was Bina like the first-graders when she spoke sharply to her mother? (She was inconsiderate and cruel.) What does this tell you about how Bina and her mother differ in the way they approach problems? (Bina avoids problems; her mother wants to deal with them.) What could you tell about Bina after you read that she would not help Carl? (She thought about herself before she thought about others; she was being selfish.) What words could you use to describe Bina when she refused to help Carl? (selfish, uncaring, unkind) What words could you use to describe Bina after she helped Carl? (unselfish, compassionate, kind, caring)*] At the end of the story, she does not so much change from a selfish person to a compassionate one, as solves a deep-seated emotional conflict which had prevented her from consistently displaying her consideration and compassion. By calling her selfish when she tries to ignore Carl, the text ignores the conflict (which is clear in the story), that she experiences. Though called uncaring, she cares deeply, and was obviously upset.

The problem, in part, arises from the text's confusion between evaluating actions and evaluating people. It is unfair to make judgments about a person's character based solely on a few actions in the worst of situations. Though her treatment of her mother during their argument and her initial refusal to help Carl were unkind, it is unfair to call *her* cruel and selfish, especially considering how torn she was when her behavior was at its worst. In part, the problem with the questions is that, though many ask about her feelings, none are followed up with discussions of why she felt as she did. Nor does the text have students 'add up' the various pieces of information about Bina.

Unrealistic Expectations

Most of the questions and suggested answers ignore the trauma Bina has carried, and the conflict she experiences. Though one question asks students whether sometimes people don't help others because they are afraid, rather than selfish, the questions and answers about Bina contain harsh judgments about her character at the points in the story where she is most torn by conflict.

The text's conclusions set up an unrealistic ideal by downplaying the difficulty of helping Carl, as though one can simply shrug off strong fear and longstanding shame in a moment. (Among the positive words used to describe her at the end of the story is the striking absence of the word 'brave.') Students should not be misled into thinking that kindness and compassion are always easy, or to despise themselves for hesitating to help in a similar situation.

Strategies Used to Remodel

S-1	exercising independent thought
S-4	exploring thoughts underlying feelings
S-25	examining assumptions
S-16	evaluating actions and policies

S-6	avoiding oversimplification
S-31	refining generalizations
S-3	exercising fairmindedness/reciprocity
S-13	raising and pursuing root questions
S-10	clarifying ideas
S-24	distinguishing ideas
S-30	exploring implications and consequences
S-2	developing insight into ego/sociocentricity

REMODELLED LESSON PLAN

The remodel contains suggestions for a more fairminded and less oversimplified discussion of Bina, a clearer discussion of the key concepts, and discussions of egocentricity and sociocentricity.

Promoting fairminded discussion

When students have read and retold the story, they can discuss the central theme. Ask, "What point do you think the author is trying to make?" ***S-1***

Discussion can be expanded, and questions from the original rephrased. When asking what Bina's feelings are at various points in the story, the teacher could follow up with quesxtions like the following: ***S-4*** What was she thinking? Why? What assumpiton did she make? Was it a good assmption? ***S-25*** Why did she make it? Were her thoughts and ideas relevant?

If evaluating Bina's behavior, the 'characterization' questions can be rephrased to focus more on the specific begavior, rather than global judgments about her. For instance, rather than asking *"What could you tell about Bina after you read that she would not help Carl?"* ask, "What did you think of Bina's begavior when she tried to ignore Carl? Why?" ***S-16*** Then the class could examine and evaluate Bina, taking into account all of the details of her begavior. ***S-6***

If the class compares characters and behavior, the text questions can be altered, and followed up, for instance, the original question about Bina's abandonment of the argument with her mother, *"What does this tell you about how Bina and her mother differ in the way they approach problems?"* can be reworded to "How did Bina and her mother differ in their approach to this problem? ***S-31*** Why?" ***S-4*** In another instance, the text asks, *"How were Nancy's feelings toward Carl different from Bina's"* We suggest the teacher ask for similarities as well as differences, ***S-3*** and ask why they had those similarities and differences. ***S-4***

The class can also clarify key ideas. For instance, if discussing 'disability', the teacher can use questions from the original: ***S-13*** *In what way did Bina suffer from her parents' handicap? Did her parents suffer in the same way? In what way is Carl lonely and silent? What kind of silence is worse, Carl's or Bina's? Why?* (integrated with additional questions like the following:) What is a disability? Who, in the story, is disabled? In what ways? ***S-10*** In the story, does the word 'handicapped' apply in the same way to Bina as to Carl and Bina's Parents? ***S-24*** What are the similarities and differences? Has a false belief ever prevented you from having or doing what you wanted? ***S-3*** How did you discover your mistake? Was the mistaken belief disabling or a handicap? Did you change your behavior when you learned you were wrong? Was it easy or difficult for Bina to change? For you? Why or why not? ***S-4***

Egocentricity and sociocentricity

The class can discuss the children who had teased Bina, with questions like the following: What assumption did the first-graders make when they teased Bina? What assumption did she make in her reaction to the teasing? ***S-2*** What assumption did she make after she moved? Have you ever been teased, like Bina was? How does it make people feel? ***S-3*** What effect did it have on Bina? ***S-30*** Why? Have you ever teased others? Did you hurt their feelings? Why do people tease? Do you approve of teasing? ***S-16*** If the teacher uses the question from the original comparing Bina's behavior to the first graders', it should be balanced by a discussion of the differences, as well. ***S-3***

An especially fruitful passage for discussion, is the one in the hospital scene which describes her state of mind. Students can discuss her feelings and the thoughts behind them, the worth or relevance of her reasons, why she snapped at Nancy, and why she thought what she did. ***S-4*** (Anger: *She had come here to run away from just this problem....It just wasn't fair.* Fear of being near Carl. *... she had worked hard these last years to build a separate life... Next week ... this boy would be gone .... they would treat her as though she were different.*) Students could relate the discussion to times when they had similar self-justifying thoughts. ***S-2*** This discussion could be extended by having students discuss similar times when they, someone they know, or another character had a similar confusion of conflicting feelings.

Evaluation is fundamental to critical thinking. The critical thinker realizes that expressing mere preference does not substitute for evaluating. Awareness of the process of evaluating aids fairminded evaluation.

The Fountain Of Youth

(Language Arts - 5th Grade)

Objectives of the Remodelled Plan

The students will:

- exercise independent thought by identifying and clarifying the main issues and ideas in a written selection about Ponce de León
- look at his actions, develop criteria for evaluating them, and evaluate them
- exercise reciprocity by considering his actions from different perspectives
- evaluate the author's reasoning about Ponce de León by examining his assumptions, and looking at the issues dialectically
- explore the differences between history, fiction, and historical fiction

ORIGINAL LESSON PLAN

Abstract

Students read a piece of historical fiction about Ponce de León. It first describes his rule of Haiti (briefly) and Puerto Rico (in more detail). It then describes his unsuccessful search for the fountain of youth, discovery and naming of Florida, battle with Floridans, and death.

The questions focus on skills of characterization, and distinguishing fact from fiction in historical fiction. Students discuss the author's conclusions that Ponce de León was greedy, cruel, and unhappy.

from *Moments* by Marjorie Seddon Johnson, Roy A. Kress, et al. ©1977, American Book Company. pp. 178c-191b.

Critique

We chose this lesson for its thought provoking content and because it combines language arts with social studies.

Fact/Fiction

The text focuses on the 'ability to distinguish fact from fiction,' as a way to teach the characteristics of 'historical fiction.' Like fact/opinion, the fact/fiction distinction is not exhaustive. An evaluation or interpretation, though not fact, need not be fiction. In making a distinction between fact and fiction, the text equates fact with statements which 'can be proven' and fiction with those which 'cannot be proven.' This is another, and quite different, distinction. Not every fact about Ponce de León can be proven now. (What colors he wore or how he first learned about the Fountain of Youth.) The lesson confuses three claims: evidence exists for this statement; this statement is true, this was the case; evidence alone confirms this statement.

As is usual with fact/opinion questions, in this selection, students are not in a position to know what can and can't be proven, what evidence exists, or what that evidence shows. It is even possible that the author's 'facts' may be wrong. He may not have researched the subject well, or may be biased in his presentation. Given students' training in the 'fact/opinion' distinction, students may have difficulty distinguishing the facts of the ruler's life from the details used to enliven the selection. The text's treatment encourages impressionistic thinking. It would be better to distinguish degrees of certainty, and means of possible verification or distinguish what the author probably thinks happened from literary embellishments.

Misconceptions

The text encourages the false view that historical accounts, as opposed to fiction, contain only facts, and no 'opinions.' Page 306 of the lesson plan has the question, "*Would you find opinions like this in a history book account of Pone de León's governorship?*" An extension emphasizes that value judgments are not found in histories. Yet every historical account is written from a point of view, after evidence has been weighed, and each presupposes values. Every historian chooses which details to mention, how to portray them, and their significance and meaning. An historical account which contains only factual information may still encourage one evaluation over another. For example, some facts may be stressed while others are downplayed or eliminated. The reader can be led to conclude that one side of a conflict is right and the other wrong, when it may, in fact, not be that simple. Furthermore, historical accounts often make explicit evaluations of events and figures. One encyclopedia we consulted described Ponce de León as a protector of colonial settlers against harassing Indians.

Some inconsistencies regarding the governor's character arise in the lesson as a result of the 'fact/opinion' distinction motivating many of the questions. Although students are sometimes encouraged to judge Ponce de León as 'cruel, greedy, and selfish,' and accept the judgment unquestioningly, at other times, they are encouraged to place the judgment in the category of 'author's opinion', and, therefore, arbitrary belief or part of the 'fiction.' Though not unquestionable, the claims admit of debate, reasoned judgment, dialogical reasoning, and evaluation. At one point, students do have a limited discussion of the author's reasoning, and are asked whether they agree or disagree with the author. Yet they do not examine the issue, concepts, evidence, opposing evidence, or views in sufficient depth to make their conclusions more than impressionistic. Nor does the lesson encourage an indepth consideration of the author's conclusion that the explorer was an unhappy man.

Insufficient discussion and synthesis

The comprehension/ characterization activity #2, at the end, fosters insight into point of view by having students write about the explorer from the point of view of a Spanish soldier, missionary, or Puerto Rican. This activity, however, is unintegrated with the rest of the lesson. Thus, any insights gained thereby are not synthesized with the rest of the discussions. Students do not develop a unified perspective from a dialogical consideration of the leader. Similarly, though extension #1 has students research many sources, and note differences in their accounts, it lacks discussion regarding how different accounts could be reconciled or judged.

The 'concept' reads "*excessive greediness can lead to cruelty to others.*" Given the author's emphasis, other main ideas seem more likely, e.g., "Money and power do not always bring happiness." or, "Even a powerful leader and capable explorer can be led on by the false promise of an enticing myth." In any case, students should discover the main point for themselves.

Strategies Used to Remodel

S-1	exercising independent thought
S-9	clarifying issues and claims
S-10	clarifying ideas
S-11	developing criteria for evaluation
S-3	exercising fairmindedness/reciprocity
S-16	evaluating actions and policies
S-13	raising and pursuing root issues
S-21	practicing dialectical thought
S-25	examining assumptions
S-14	evaluating arguments
S-5	suspending judgment
S-2	developing insight into ego/sociocentricity
S-18	making interdisciplinary connections

REMODELLED LESSON PLAN

We have divided this remodel into four sections. In the introduction, students find and begin to clarify the main point of the selection. The next section, "Exploring the author's reasoning," contains suggestions for in-depth discussion of the selection. We make suggestions for a unified discussion of the type of literature of the selection in the next section. The last section contains some ideas for additional discussions.

Introduction

The teacher may want to begin the lesson by asking if students have heard of the fountain of youth, and if so, what they know about the story.

When the selection has been read, have students retell the story in their own words. Have them distinguish the main points from the details. ***S-1*** What point is the author making? Is it well made? What supports his point? Have them analyze the main issues (e.g., What kind of leader was he, good or cruel? Was he happy? Gullible? etc.) ***S-9*** Have students identify and clarify the key concepts (possibilities include: 'greed,' 'oppressor,' 'cruel leader,' 'legitimate government,' 'unhappy life,' 'fool') ***S-10*** Have students describe what kinds of evidence would be required to justify application of the key terms, and their opposites. ***S-11***

Exploring the author's reasoning

Then, to unify discussion of the author's characterization, the teacher may ask, "What does the author think of the main character? Why? (The descriptions could be listed on the board.) How could we know whether the author's conclusions are justified? Have them fill out the reasoning - not just pieces of it, but as a whole.

If evaluating Ponce de León as a ruler, students should consider both sides of the issue. Have students examine the author's point of view in depth. You could also ask, "What is left out? (A view favoring Ponce de León.) How would Ponce de León, or those who approved of him respond?" ***S-3*** (His primary responsibility was to his King and Queen, and his men; the natives weren't Christian or civilized; he could take what he wanted because he was stronger.) "What, if anything, could justify his behavior? ***S-16*** Was his appointment as governor justified? Why or why not?" The letter writing and alternative sources exercises could be integrated into this discussion. *S-13* If so, students can discuss how the different accounts should be reconciled or evaluated. *S-21* Have students compare the author's concepts and assumptions with concepts and assumptions of opposing views. *S-25* Have students discuss their own conclusions, and back them up with reasons. *S-14* Or, if they feel they are not in a position to come to a conclusion, have them describe the evidence they would need to be able to decide. *S-5* Such a discussion could lead into a discussion of the explorer's possible sociocentricity. *S-2* Research regarding European society and attitudes about the New World could be brought in as well. *S-18*

Teachers using the text questions on fact vs. fiction could rephrase and incorporate them into the above discussion. *S-13* Rather than asking whether details can be proven, the teacher could ask, "How could we find out if this is true? *S-9* (letters, ship's log, official documents, records, laws, proclamations, other first hand accounts, physical evidence such as graves, and abandoned living areas.) Would evidence alone tell us? Are we evaluating him? What criteria are appropriate? Why?"

Type of Literature

Rather than using scattered activities and questions to clarify 'historical fiction,' the teacher may want to lead a more unified discussion. *S-13* The teacher may point out that an author of historical fiction may do a lot of research, or little, and may even ignore what he knows about the times in order to make the story more interesting. Students can group parts of the selection that are clearly the author's additions from those that are clearly historical. Unclear cases could then be compared to those groups and discussed. When discussing parts of the selection other than history, have students distinguish claims that probably reflect the author's beliefs and conclusions, from what the author merely added to enliven the selection, whether the added details affect their impression of the main character, and if so, how.

The class could also distinguish historical fiction from history and from other types of fiction. *S-10* Students could discuss examples they have read of each type of writing. They could then describe the features enabling them to categorize selections, and generalize about each type.

Additional Discussions

The class could also discuss the text questions: *Do you think it would be good never to grow old? Would you like to stay the same age you are now? Why or why not?* Discussion could be extended with the following questions: What would be the advantages of staying young? Disadvantages? *S-3* Why or why not? Why do some people wish they could stay young?

The class could discuss the character's belief in the fountain: Was it reasonable for him to believe in the fountain of youth? Why did he believe in it? (All of the natives, from many places, believed in it. He wanted to believe in it.) Students could also mention other examples of leaders with mistaken beliefs. The class could have an extended discussion of wishful thinking; how sometimes we believe only because we want to believe. *S-2* Students can relate this problem to their own lives.

News

(Language Arts - 5th Grade)

Objectives of the Remodelled Plan

The students will:

- explore the consequences of working with and using different news media
- engage in Socratic discussion of root questions about the importance of following the news
- exercise independence of thought when evaluating the importance of, and emphasis on, news items
- analyze news stories by clarifying issues, claims, and criteria for evaluation

ORIGINAL LESSON PLAN

Abstract

This unit has the following objectives: To identify the various parts of the front page of a newspaper from a labeled picture of a front page; to be able to select the best headline from four headlines about the same event; to be able to condense sentences into headlines of five words or less; to be able to analyze a local newspaper and report the relative proportions of international, national, state, and local news; to identify, from three news stories, which informs, which advises, and which entertains; to be able to write leads for news stories when given the necessary information; to be able to rewrite leads and supply information that is missing; to be able to write several of the five types of news leads when given the necessary information; to be able to write a news story beginning with the most important information and continuing with less important information; to identify slanted headlines in the news; to be able to answer five questions about the purposes and techniques of a model editorial; to be able to recognize a controversial topic and write an editorial about it; to identify the better of two letters to an editor, and explain the reasons for the choice.

from *Our Language Today, 5* Level E. David A. Conlin, et al. ©1978, American Book Company, pp. 101-121, G33-G40.

Critique

Critical thinking enables one to improve one's basic beliefs, and this requires having as complete information as possible. We chose this unit because of the important role that the news media have in shaping our view of the world. The earlier a person can learn to use news sources critically, the better. The critical thinker follows news, at least in part, for well defined purposes. The critical spirit shapes his use of news media.

When thinking about news media, the critical thinker considers such questions as, "Why follow the news? What does 'news' mean? What situations and events are most important for me to know about? What can I believe? What should I doubt? What shapes the form and content of news I receive? What are the purposes of those who bring me news? How should I evaluate news sources?" Furthermore, the critical thinker realizes that the use of such ideas as, 'news,' 'fact,' 'important,' and 'worth knowing,' all reflect one's perspective. The independent thinker makes these distinctions for himself, rather than accepting reporters' and editors' ideas. The critical thinker actively uses news media to develop his perspective, rather than passively accepting the perspective presented.

Independent thought

An enormous number of events occur everyday. No more than a small fraction can be printed or broadcast. Inclusion and placement of stories and order of details are editors' and reporters' decisions, and reflect *their* perspectives. Reporters and editors decide which to print and which to ignore, which to put on the front page and which inside. Yet the text repeatedly claims that the main or most important stories are on the front page; the most important details are in the first few paragraphs. By ignoring the affect of newsmen's perspectives, the text inadvertently encourages students to unquestioningly accept others' judgments, rather than making their own.

Another factor which determines the size and placement of an article, is its popularity. A popular, though unimportant, issue may receive prominent and extended coverage. For example, a soft drink company that changed its recipe received time and space completely out of proportion to its importance. Gossip, celebrity news, fads, and other trivial events often receive more prominent coverage than serious issues and events. Emphasizing that the most important news receives the most extensive and prominent coverage discourages students from examining and evaluating the importance others place on news.

The text presents three articles to students exemplifying each of the three 'purposes' of news stories: to inform, to advise, to entertain. Providing this distinction discourages independent thought. This is a common complaint regarding this and many lessons. Texts often ask and then immediately answer questions, rather than encouraging students to think for themselves, thereby inadvertently encouraging students to passively receive ideas.

Fact/opinion

The text uses and hints at the fact/opinion distinction throughout the unit. The sections on slanted news and news vs. editorial pages emphasize the distinction. The use of this distinction, as usual, is highly misleading. For example, an exercise in the section on slanted news marks as accurate the claim that 346 people heard a talk, whereas the claims that the crowd was large or small are marked as slanted. Without context, without knowing the facts of the case, students are in no position to judge which of the three claims is most accurate. The number given could, due to error or vested interest, be wrong, one of the judgments could, due to exceeded or disappointed expectations, be more accurate. The text encourages students to accept claims containing precise sounding language, and doubt other kinds of claims. What *sounds* like a fact may be more doubtful than an inference or evaluation. Students should not be led to believe that they can judge the truth of claims merely by looking at their form. Instead, they should note the sources of claims and discuss the criteria for their evaluation. Here, the text provides no guidance.

The text promotes the commonly held belief that the news is facts (and therefore true) and 'opinion' (usually understood as 'mere opinion') is reserved for the editorial pages. This belief ignores the following points: 1) Much of the news is quoted. Although it may well be true that this person did say that, what the person said may be false or misleading. Readers should remember whether "something they read in the paper" was quoted and from whom and in what context. 2) Reporters make mistakes. They can get the facts wrong. 3) Facts can be reported out of context. Facts crucial to a fair understanding of an event can be left out, trivialized, or unfairly discredited. 4) When a newspaper goes on a crusade, investigating and reporting a story to champion a cause, most of that work appears in the news sections. 5) Editorial columns or letters to the editor may well contain facts (sometimes crucial facts not found elsewhere in the paper). 6) A well reasoned, clearly presented 'opinion' column or letter to the editor may be as well worth reading, as new, insightful, and informative, as useful for understanding an issue, as 'news.' 7) Favored interpretations or explanations of events can be assumed or promoted, reasonable alternatives, ignored. Students should learn to judge what they read on its own merit and in relation to evidence, not on the basis of the section in which it appears. (See the section on fact/opinion, in "How to Use This Book.")

Superficial explanations

The lesson 'Types of News,' encourages students to see all news stories as either informing, advising, or entertaining. As it stands, the distinction offers little help toward understanding purposes and functions of various stories. The functions, rather than being clarified, are left vague. What is the difference between informing and advising? Informing and entertaining? What is the purpose of the distinction? How should this distinction affect how each kind of story should be read, understood, or used? The lesson leaves students with a superficial, three word answer to root questions about the function of a wide variety of kinds of news stories.

According to the text, news is slanted by use of misleading headlines or sentences (understood in light of the fact/opinion distinction). The text ignores the subtler and much more common forms, such as placement, emphasis, introduction and use of details and quotes, lack of coverage, and the time at which stories are used or ignored. The concept of slanted news is trivialized by the text treatment. A neutrally phrased headline above seemingly factual statements may be slanted. The presence of evaluative language may not show bias. Though word choice often biases readers, the bias most frequently occurs in a larger context, than in a single sentence. Writers may have double standards regarding the use of evaluative words or phrases, or some terms may simply be asserted without support. The text ignores these factors in favor of applying the fact/opinion distinction to headlines and claims.

Trivial activities

Too much time is spent having students write headlines, leads, and stories, and copy sentences. Introducing reflective critical use of news media is more important for fifth graders than training reporters. Other forms of writing practice could be substituted (paraphrasing, summarizing, writing argumentative essays).

In one activity, students match 'headlines' to nursery rhymes. Such activities add nothing to understanding news or news sources and should be dropped.

Confusion

The students text, in the section "What is news," says, "*What is news? News is any recent happening.... Any matter that is considered interesting enough to report is news.*" The text has given two different answers, which it fails to reconcile or explain. The teachers' notes compound the confusion by saying, "*Question the class as to their understanding of 'recent.' Lead them to see that in terms of interest, recent cannot be limited to a specific time interval. The report of the discovery, some time ago, of a buried city may interest many people if they did not hear the facts at the time.*" Suggesting that 'recent' has nothing to do with time, but with interest, is confusing and misleading. The word 'recent' refers to time. To suggest that is doesn't is sloppy writing. To say that 'recent' is sometimes old is absurd and fosters the idea that meanings of words are completely arbitrary. The writers seem to mean that even an old event can be of interest now. If so, perhaps the phrase "recent, or of recent interest" should have been used.

Strategies Used to Remodel

S-30	exploring implications and consequences
S-19	engaging in Socratic discussion
S-1	exercising independent thought
S-13	raising and pursuing root questions
S-11	developing criteria for evaluation
S-8	developing one's perspective
S-9	clarifying issues and claims
S-12	evaluating source credibility
S-14	evaluating arguments
S-20	practicing dialogical thinking
S-18	making interdisciplinary connections

REMODELLED LESSON PLAN

Teachers' Introduction

We recommend that the teacher spend as much time as possible on this unit. By using social studies time, teachers can increase time available for study of news. News media themselves should be the main source of material, the text can be used as a reference for vocabulary. Students may also critique parts of the text, after their study of news.

Although both the original and remodelled lessons focus on newspapers, we recommend that other sources of news also be used, discussed, and compared. *S-30* "What are the differences between TV, radio, magazine and newspapers? How do these differences affect presentation of the news? What are the consequences of the differences? What are the consequences for users of these forms of news?" Students could compare the perspectives reflected in different news magazines, newscasts, and newspapers. Videotapes of news reports could be used to introduce students to important stories.

Our remodelled unit is divided into the following sections: 1) Preliminary work; 2) Story placement; 3) Individual items; 4) Influence of media; 5) Purposes of news; and 6) Using news in other subjects.

1) Preliminary work

The class could spend the first week or so examining the news. The teacher may want to set up heterogeneous reading groups wherein stronger readers can help weaker readers. Groups may be formed to follow ongoing stories for the duration of the unit (and beyond.) Such groups can make periodic reports to the rest of the class, and the subjects can be discussed.

Work within such groups could be divided, with interested students doing background research, and others collecting, paraphrasing, and analyzing articles, looking up unfamiliar terms in dictionaries and encyclopedias. Students not interested in following an issue may cut and categorize stories (perhaps by subject, importance, or perspective of the source.) Some students could keep running tallies on such things as use of wire services, newsmen's sources, reports of opinion polls, what proportion of the news is quotes, or who is quoted the most.

The class could have a preliminary discussion of what 'news' means and why it is important. ***S-19*** The teacher could ask questions like the following: What is news? What are newscasts and newspapers for? What do they do? (Follow up student responses with further questions, or counter examples.) What kinds of stories make up the news? What kinds of stories do not make the news? Why do people listen to, watch, and read about news? What do people want to know about? What do people need to know about? ***S-1*** (Encourage multiple responses, and encourage students to draw this distinction between want and need.) What kinds of things are important for people to know? Why? ***S-13***

When students have had sufficient time to familiarize themselves with newspapers and have shared their discoveries and impressions, the teacher can begin a series of more in depth discussions about the significance of what they've found and about news media.

2) Story placement

Students could apply insights gained through perusal of the news and preliminary discussions by discussing placement and emphasis of news. The teacher could use questions like the following: If you were an editor, and had a stack of stories, how would you decide which to print, and which not to print? ***S-1*** Why? Which to put on the front page and which inside the paper? Why? Which gets the biggest headline? If you were writing headlines, how would you figure out what to say? If you were a reporter, which details would you put first? Next? Last? Why? Would everyone make the same decisions? Have students discuss what kinds of stories everyone would agree are most important, least important, and which are of disputed importance. ***S-11***

Students could compare front page stories with stories inside the paper, compare their ideas about what's most important, to those of the editors, and generalize about their criteria. Ask questions like the following: Why do you think these stories are on the front page? ***S-1*** What, according to the editors of this paper, are the most important stories of the past week? Why, do you think, did they make these decisions? What other decisions could they have made instead? Are there stories or articles the editors thought were unimportant, that you think are important? Which stories inside of the paper do you think belong on the front page? Why? ***S-8*** What were the editors assuming? What could they have assumed instead? Which assumptions are better? Why? (Similarly, students could compare different sources coverage of specific stories.) Do any of the criteria conflict? If so, why might they conflict? Can they be reconciled? If so, how?

3) Individual items

To develop students' sense of the requirements of fair coverage, the teacher could take a lead paragraph or headline, tell students the basic idea of the story, and ask questions like the following: To research this story fairly, what would you have to do? ***S-9*** Where could you get the information you need? Who would you have to talk to? What questions should you ask? (The answers could be compared to the actual story, or stories from different sources - other papers, magazines, or TV.) If the story is one of conflict, the teacher might ask: How are the sides portrayed in the story? Are they given equal space? Is each side portrayed neutrally? Why do you say so? Are the evaluations justified? Why or why not? How could we find out? How do the terms used influence the reader? Are the terms justified?

Students could discuss how details can be evaluated, rather than applying the fact/

opinion distinction to statements. The teacher or students could select a story, and discuss questions like the following: ***S-12*** What facts are mentioned in this story? (The teacher may want to record these.) What is the main point? Are all of the facts relevant, or are some irrelevant? Why do you say so? Do the facts seem complete? Are both sides represented? Is the report complete/does it tell you everything you need to know to be able to judge the situation? Why? What sources are used? Are these people in a position to know what they claim to know? Why or why not? Does anyone connected with the story have a vested interest in what people believe about it? What evidence is presented to support or undermine the truth of the claims made? What conclusions, if any, can we reach about this story?

For work on headlines, students could take actual newspaper articles, summarize or paraphrase them, and then assess the accuracy of the headlines. Students could suggest better headlines, compare different headlines for the same story. ***S-1***

Examination of editorials, columns, and letters to the editor provide fruitful practice in argument analysis and critique. ***S-14*** The class could discuss questions like the following: What is the writer's main point? How does he support it? What are the key terms or ideas? Are they used properly? Why or why not? Does anything said contradict something you know? ***S-20*** How can we find out which is true? Does the writer cite evidence/facts? What? Where does he get them? Are they clearly true, clearly false, or questionable? Why? Are the facts relevant? Why or why not? Are some relevant facts left out? How would someone with an opposing view answer? (Students could practice dialogical or dialectical thinking here, if they are familiar enough with the subject.) What are the strengths of this argument? The weaknesses? Does the writer make a good case? Why or why not?

4) Influence of media

To explore some of the affects media have on reported news, the teacher could lead a discussion about "News as a business." ***S-30*** Point out that most money comes from advertising, and that news media with larger audiences get more money from advertisers. So news emphasizes stories that sell papers and attract viewers. And to maximize profits by spending less, news media tend to use cheaper sources such as press conferences, press releases, rather than investigation. The teacher may want to explain how AP and UPI are news-gathering services to which media subscribe. These services provide most of the news used by reporters.

Since two main sources of news are the press conference and press release, the teacher may want to explain what these are. Perhaps students could watch a videotape of a press conference. Students could look for and count mentions of each, discuss why people give them, who gives them, who doesn't give them, and why they are relied on heavily.

5) Purposes of news

At or toward the end of the unit, the class could discuss purposes of following the news in greater depth than in the preliminary discussion. ***S-13*** The class can discuss the news covered during the unit. Ask questions like the following: What were the major stories? What other stories did you see? How important are the stories we've seen? Why? (For individual stories, ask,) Are they events people should be aware of? Why or why not? Why would people find them interesting or important? How important were they? What effect did they have? On whom? Which stories do you think are the most important for people to know about? Why? What does 'news' mean? (Discuss at length.)

During the course of this discussion, the teacher may have students review the idea of 'democracy.' If necessary, explain the phrase 'informed decision.' The class can then discuss the kinds of news citizens of a democracy need to know. (Background for important decisions; actions of elected and appointed government officials. Discuss at length.)

6) Using News in Other Subjects *S-18*

Social Studies Students could write news reports of historical events under study. Different students or groups of students could write the reports from different points of view, for example, the Revolutionary War from the points of view of the English, Indians, and Americans. Students could compare and evaluate the results. *S-20*

Stories followed by students could be researched using back issues and other resources for background into the history of the country, conflict, or groups involved. Study of both the news and geography could be enhanced by having students read and discuss news about areas under study in geography, or using their geography texts and other sources to research areas mentioned in important news stories.

Politics is an especially fruitful area for using news. Students can discuss different offices and to which branch of government each belongs, distinguish aspects of government mentioned in the Constitution from those not, and discuss any Constitutional issues which arise during the unit. Students can also learn about other governments, how they work and their similarities with and differences from ours, as well as our relationships to them.

Students could also relate discussion of political action groups and public opinion to government and history. ("What is this group trying to accomplish? Why? Why hasn't it been done? How are they trying to accomplish their purpose? Do you think their goals are important? Why or why not? How would you evaluate their methods? Is public opinion important or relevant in this case? Why or why not? How do people find out what the public thinks? How do polls work?) The subjects anthropology, sociology, psychology are also covered in the news and could be introduced or discussed.

Science Public opinion polls could be compared with scientific studies. Students could use news reports when studying weather and climate. Such subjects as energy, the environment, health and nutrition, and sometimes astronomy and physics are covered in the news. Students can use, discuss, and evaluate various charts, graphs, and diagrams.

Critical thinkers realize that everyone is capable of making mistakes and being wrong, including authors of textbooks.

Advertising

(Language Arts - 5th Grade)

Objectives of the Remodelled Plan

The students will:

- exercise reciprocity by considering advertisements from a variety of perspectives
- analyze and evaluate advertisements
- practice using critical vocabulary to analyze and evaluate ads
- clarify key words in ads
- distinguish relevant from irrelevant facts in ads
- develop insight into egocentricity by exploring the ways in which ads appeal to self-image
- explore the implications of visual and audio aspects of ads
- examine assumptions in ads

ORIGINAL LESSON PLAN

Abstract

The student text reminds students that poets have their own ways of using language to describe, then points out that advertisement writers also have a unique way of using language. It emphasizes that such writers try to make products sound attractive. Students are informed that "*Advertisers use language that influences people to buy.*" Students match products with sentences. (For example, strawberries: *Try our sweet vine-ripened rubies to delight a king's table.*) They make up names for products, and rewrite sentences "using the language of advertisers." (For example: *Our vitamins will make you feel better.*) They write a "Buyer's Guide."

from *Patterns of Language,* H. Tompson Fillmer, et
al. American Book Co. © 1974
pp. 80-81.

Critique

We chose this lesson for its subject: advertising. Ads are a natural tie-in to critical thinking, since many are designed to persuade the audience it needs or wants a product. Ads provide innumerable clearcut examples of irrelevance, distortion, suppressed evidence, and vague uses of language. Analysis of ads can teach students critical thinking micro-skills, and show their use in context. This lesson, however, is not done in a way which best achieves these results.

The lesson focuses more on writing ads, than critiquing them. It treats neutral and advertising language as basically equivalent in meaning, though different in effect, rather than pointing out how differences in effect arise from differences in meaning. It downplays the emptiness, irrelevance, repetition, and distortion of words in most ads. Its made-up slogans bear little resemblance to real ads. Furthermore, most of the products are not children's products, minimizing the immediate usefulness of any insights students may have.

Since most students are exposed to more television commercials than other ads, we recommend that students discuss real commercials, aimed at them. We also provide suggestions for using ads to practice use of critical vocabulary, and to discuss the visual and audio aspects of commercials.

Strategies Used to Remodel

S-14	evaluating arguments
S-10	clarifying ideas
S-3	exercising fairmindedness/reciprocity
S-26	distinguishing relevant from irrelevant facts
S-2	developing insight into ego/sociocentricity
S-23	using critical vocabulary
S-30	exploring implications and consequences
S-25	examining assumptions

REMODELLED LESSON PLAN

Due to the number of ads to which students are exposed, and their degree of influence, we recommend that the class spend as much time as possible on the subject.

To focus on ads and language, begin by having students give complete descriptions of what is said in a variety of television commercials. Put the quotes on the board. For each commercial, the class can discuss the following questions: What ideas does it give you about the product (or service) and owning or using it? Does it give reasons for buying the product? If so, what reasons? Are they good reasons? ***S-14*** What are the key words? Do they have a clear meaning? What? ***S-10*** What other words could have been chosen? How might someone who wasn't trying to sell it describe the product? How might a competitor describe the product? ***S-3*** What would you need to know in order to make a wise decision about whether to buy it? ***S-26*** Does the commercial address these points? Why or why not? Has anyone here had experience with the product? What?

When the commercials have been discussed, have students group them by the nature of the ads (repetition, positive but empty language, etc.) or of the appeals made (to the desires to: have fun, be popular, be more grown up, etc.) ***S-2*** Have students fill out the groups by naming similar commercials not previously discussed.

The class could also compare different ads for the same product, aimed at different audiences (e.g., fast food ads aimed at children, vs at adults). Or the class could compare ads for different brands of the same or similar products; compare ads to what can be read on ingredients' labels; or conduct blind taste tests.

The teacher interested in developing students' critical vocabulary can have students practice while critiquing ads. Use questions like the following: ***S-23*** What does the ad imply? ***S-30*** Does the ad make, or lead the audience to make, any assumptions? ***S-25*** Are the assumptions true, questionable, or false? Does the ad contain an argument? If so, what is the conclusion? Is the conclusion stated or implied? Does the ad misuse any concepts or ideas? To judge the product, what facts are relevant? ***S-26*** Are the relevant facts presented? Does it make any irrelevant claims?

The class could also discuss aspects of the ads other than use of language. ***S-30*** What does the ad show? What effect is it designed to achieve? What is the music like? Why is it used? Do the actors and announcers use tone of voice to persuade? Facial expression? How? Are these things relevant to judging or understanding the product?

The teacher may also have the class critique ads for any stereotyping (e.g., sexual stereotyping).

Lesson plan remodelling is well done when the person doing the remodel understands the strategies and principles used, when the strategies and principles are well thought out, when the remodel clearly follows from the critique, and when the remodel teaches critical thinking better than the original.

Questions

(Language Arts - 6th Grade)

Objectives of the Remodelled Plan

The students will:

- practice clarifying questions by distinguishing various interpretations of the question, "Which breed of dog is best?"
- develop different sets of criteria for evaluating breeds of dog

ORIGINAL LESSON PLAN

Abstract

Each lesson in this units presents rules describing the transformations of statements into one of four different kinds of questions. In the first lesson, students learn how a statement can be made into a question by a change in intonation, while leaving the word order unchanged. The second lesson introduces students to the transformation rules of yes-no questions, and how the tense and placement of 'be' affects this transformation. (For example, "The car has been sold." "Has the car been sold?") The next lesson introduces the transformations that produce wh- questions. (Who, what, how, when, why, and where) To affect this transformation, students come to see that some information in the statement is replaced by a question marker. ("Miriam is upstairs." "Where is Miriam?") In the last lesson, students are introduced to echo questions. Here, a statement is 'echoed' back by the speaker, in which the hearer is to affirm or deny the statement. ("Fred left town." "Fred left town, didn't he?")

from *Language and How to Use it* 6 by William Jenkins, Charlotte Huck, et al. ©1973, Scott, Foresman, & Co. pp. 213-220.

Critique

We question the usefulness of this level of transformational grammar to 6th grade students. The rules for transforming statements into questions are cumbersome and complex. Teaching students transformation rules to memorize is less important than teaching insight into the meaning, significance, logic of questions and their relationship to statements.

We recommend that, if possible, these lessons on transformational grammar be dropped. If transformational grammar must be taught, then we suggest fostering independent thought by having students discover the transformations for themselves. Students already know how to transform statements into questions, they do it all the time. They could compare statements with their parallel questions and formulate rules which describe the differences between them.

More important and useful for the students than transformational grammar, is that they become aware of the logic of questions. Every question has a logic to it, in that each sets a specific task to be accomplished in order to settle it. There are different types of questions, each requiring different methods of settlement. How a question is settled is parallel to how the corresponding statement is verified. That is, to verify the statement "Cheetahs are an endangered species." one would need to do the same sorts of things as if one were settling the question, "Are cheetahs an endangered species?" To understand the question and its logic is to understand precisely what would have to be done to settle it. How to settle the question parallels how to verify or refute the claim.

To settle any question, we need to be aware of the kinds of tasks the question requires us to perform (or which any authority we may consult must perform or have performed.) We distinguish three such kinds of tasks: 1) gathering facts, evidence, empirical information; 2) evaluating; 3) analyzing or clarifying concepts (words or phrases; ideas). Many questions are mixed, that is, they require two or all three kinds of tasks.

Grasping the logic of a factual question requires sensitivity to what facts are relevant to the question, and how those facts can be gathered. Factual questions require sense-data for their settlement; some also require use of numbers (counting or measuring.) If you can't gather the information yourself, you can use your analysis of the question to evaluate sources of the relevant information.

The second possible kind of task set by a question is evaluation, with the question asking us to judge which is better or worse, desirable or undesirable, right or wrong, healthy or unhealthy, good or bad, etc. It is important to notice that to ask for an evaluation is not to ask for mere opinion. It is true that some evaluative questions are only asking us for our personal preferences, as in the question, "Which ice cream do you like best?" I need only consult my own taste to settle it. The most problematic evaluative questions, however, do not ask for preference. Consider the question: Which ice cream is the creamiest? Here the question is not asking which ice cream I *think* is the creamiest, nor which *tastes* the creamiest, rather which ice cream *is* the creamiest. An evaluation is then made (for which facts must be gathered) of the various brands, with the criterion for the evaluation being their cream content. What we need to do to settle the question is to examine ice creams, not say which we like. Evaluation is not equivalent to expressing mere opinion. Furthermore (like most evaluative questions) it also requires facts.

The third possible task is analyzing concepts, in which we have to clarify vague or ambiguous words, phrases, or questions, or where the question is itself asking about the relationship between words or concepts (for example, "Are bachelors ever married?" or "Do animals think?" The latter has a conceptual component insofar as what we include in and exclude from the category 'thinking' depends on the meaning we ascribe to the term.)

Questions are generally mixed, requiring some combination of clarification, evidence, and evaluation. For example, suppose someone was asked, "Which is the best car?" As it stands, the question is vague. It asks one of a number of more specific questions. In different contexts the question could be asking which car is my personal favorite; which gets the best mileage; which is safest; which, if used to drive clients around, would most help me make a sale. Upon deciding which question is meant, the reasoner would then decide what criteria would be appropriate for the evaluation. The criteria for evaluation in turn, tell the reasoner what kinds of facts to seek when actually examining or researching cars.

Similarly the question "Is the U. S. a true democracy?" requires all three types of tasks. First, the conceptual: What would have to be true of a form of government before we would want to call it a democracy? Must all citizens have power? Equal power? At what point would we say, "No, that country isn't a democracy." and call it something else instead? Such analysis sets up criteria for the evaluation. Once we know what, exactly, to look for, we can try to find the facts. Finally, we would have to decide whether or not the U.S. meets the criteria well enough to be judged a true democracy.

By discussing the requirements of various kinds of question, students can become clearer, more accurate and precise thinkers. The value of a lesson on questions is that questions become the subject of study, rather than something to be answered before moving on. Students are forced to slow their thought down and examine it in detail.

Strategies Used to Remodel

S-9	clarifying issues and claims
S-10	clarifying ideas
S-11	developing criteria for evaluation
S-26	distinguishing relevant from irrelevant facts

REMODELLED LESSON PLAN

To introduce students to the logic of questions, the teacher might begin by asking a question like: ***S-9*** Which breed of dog is best? After students have discussed their answers, the teacher can begin to record some of the reasons they give. (Favorite, friendly, brave, pretty, etc.) Some students may ask what is meant by 'best,' or 'best for what?' If so, the teacher can proceed to the next paragraph without spending any more time on best breeds.

Students could then be asked a question like: Why did you give different answers? Point out to students that the question, as originally asked, is vague, and could be understood as asking any number of more specific questions. The teacher could then point out that students assumed an interpretation of the question. Students could explain what they think are the most important qualities for a dog to have. The teacher could also ask, "How could the question be clarified? How would you reformulate/reword the question to make clear what is meant? What more specific question could be asked, instead?"

Individual students could be asked to reformulate the question so it corresponds to the questions each answered. (E.g., "German Shepherds, because they're brave and ferocious," answers the question, "What breed of dog makes a good guard dog?") The class could discuss what questions could help the questioner formulate a clearer question. (What do you mean by 'best breed?' Do you mean the friendliest, or best worker? Best breed for what purpose?)

When students have exhausted possible formulations, the teacher could focus on the phrase 'best breed,' or ask students to identify the unclear words. Point out that the phrase is evaluative and presupposes a purpose for making the evaluation, and criteria for evaluation. Students could then take several reformulations and develop sets of criteria for each. ***S-10*** Point out that these are the criteria which can then be used to evaluate various breeds. ***S-11*** Here it is more important that students suggest criteria and give reasons, than that they give definitive lists of criteria.

Students are then in a position to discuss the kinds of evidence required by the new questions. Students could give examples of dogs that did and didn't meet one of the criteria. Or they could mention the kinds of evidence one would need to settle the various interpretations of the original question. ***S-26*** They could discuss how the information could be gathered. (You would have to know how easy it is to train it to do this kind of thing. How each breed would act in this kind of situation. How much care it requires.) Students could mention resource works wherein they might find relevant and reliable information, but they should not confuse how to research the answer with the logic of the question, or 'what someone has to do to find out for himself.' The class could compare the evidence required by different specific questions, and so deepen their sense of the importance of clarity of expression. (If I want to know if a breed adjusts to living in an apartment, it does no good to learn that it's a good sheep-herder.)

Students could gain further practice and insight by clarifying a variety of questions. ***S-9*** The teacher could use questions like the following: Is the question clear? Do we know how to settle it? Do we know what each word means, and what they mean together in this combination? Is something being evaluated? What? Why? What criteria should we use? What kinds of facts would we need? Where would we have to go to get the evidence for ourselves?

Any questions could be discussed. The class could discuss different kinds of questions from other textbooks. Here is a list of possible questions for analysis. We have broken them into categories, though they could be used in any order:

Empirical: How tall is Mary? Is popcorn heavy? How many miles is it from the Earth to the moon? Why does yeast make bread rise? What is the capital of New Jersey?

Evaluative: Is Sue a good baseball player? Is sugar good for you? Which skateboard is the best? (Each of these also requires facts.)

Conceptual: Is a whale a fish? What's the difference between a democracy and a dictatorship?

Mixed: Are Sarah and Tom friends? (If their relationship is borderline, the question will be more conceptual.) Is Jack happy? Was life a hundred years ago better or worse than life now?

In teaching for critical thinking in the strong sense, we are committed to teaching in such a way that children learn as soon and as completely as possible how to become responsible for their own thinking.

The Cave

(Language Arts - 6th Grade)

Objectives of the Remodelled Plan

The students will:

- practice dialogical thinking by comparing several perspectives on events in a story
- develop criteria for evaluating actions
- evaluate actions in the story
- discuss possible justifications for revenge
- develop insight into sociocentricity by discussing membership in a gang
- practice such critical vocabulary as 'assumption,' 'conclude,' 'interpret,' and 'perspective'

ORIGINAL LESSON PLAN

Abstract

Students read a story about a boy named Charley, a member of the Jesse James gang. Charley meets George an artist bum who has carved statues in the walls of his cave home. Charley begins visiting George regularly. Meanwhile, the Jesse James gang needs a cave for a clubhouse. Charley finds a possibility and leads the gang to it. He goes inside to explore it, falls down a deep hole, wanders through caverns and tunnels and finally comes into George's cave. He agrees to keep the cave secret, but the gang, suspicious because Charley had been gone too long, and had returned to them holding one of George's carvings, decides to explore Charlie's discovery themselves. One day, Charley comes to visit George and finds the statues destroyed, George gone, and the gang in possession of the cave. He fights the gang-leader Pat, but loses. The story ends with his decision to join a tougher gang and eventually seek revenge on his old gang. The story is told in flashback.

from *To Turn a Stone*, by Theodore Clymer and Helen Wardeberg. ©1973 Ginn and Company. pp. 14-31.

Critique

We chose this lesson because the story content is conducive to developing a variety of critical thinking skills and insights. The guilt experienced by the main character, as well as the broad range of other emotions, are fruitful subjects for evaluation. The question of Charley's guilt or innocence of the gang's treatment of George is intriguing since, though he feels guilty, the facts of the situation do not clearly support his self-imposed verdict. Charley's decision to get revenge is also ripe material for student evaluation.

Although Charley's guilt is by no means well established, the text seems to beg the issue. (*"What events would you blame Charley for?"*) This is especially surprising since it sets the purpose for reading the story as *'to decide whether Charley was to blame for what happened."* We recommend a more thorough discussion of the issues of his guilt and plan of revenge.

Although the text does place a value on encouraging reciprocity when it asks students to take other points of view, it doesn't give students the necessary guidance for recognizing the implications of seeing an issue from a different point of view. This is a common problem with texts at this level. They fail to have students integrate taking other perspectives with analysis and evaluation of reasoning. The student is left with separate, unreconciled views rather than an integrated more complete view.

The text also misses the opportunity to have students explore the important relationships between thought and feelings in this story. The main character experiences a wide range of emotions, and students could take advantage of this to discuss what his thoughts and assumptions were likely to have been, and whether they were reasonable or justified. Such discussion can develop students' insight into emotion and thought, and their critique. Students should develop the insight that feelings don't come from no where, or from situations alone, but are, rather, a result of how we interpret situations (often unconsciously).

The lesson can also be used to have students practice using critical thinking vocabulary.

Strategies Used to Remodel

S-1	exercising independent thought
S-11	developing criteria for evaluation
S-20	practicing dialogical thinking
S-8	developing one's perspective
S-14	evaluating actions
S-2	developing insight into ego/sociocentricity
S-4	exploring thoughts underlying feelings
S-23	using critical vocabulary

REMODELLED LESSON PLAN

Instead of asking students "*What events would you blame Charley for?*" The teacher can ask "Is Charlie to blame?" ***S-1*** (Or the teacher could have students critique the text's question.) The class could discuss relevant details, and make their standards of evaluation explicit. ***S-11*** Students might also change story details to make their points about standards clearer. If so, encourage them to use 'If.' ("If Charlie had ....) Consider using questions like the following: What exactly did Charley blame himself for? Find places in the story where he says he did something wrong. Why does he think each is wrong? Was it intentionally wrong, a mistake, or what? What was wrong with what the gang did? Why was it wrong? Can you be blamed for someone else's actions? When? Why? Can you be blamed if you didn't know the result of your actions? Why or why not? When? Could Charley have prevented the destruction of the artwork? How? Why not?

The exercise in which students describe the story from George's and Pat's perspectives could be integrated here with such questions as: Would George blame Charley? ***S-20*** Why or why not? Why do you think so? Would Pat blame Charley? Why not? (Pat didn't think wrecking the statues was wrong.) What did Pat think of Charley's behavior? Why? What did other members of the gang think? Why? Whose perspective Is closest to yours? ***S-8*** Why? How is yours different? Students could also describe the main characters from other characters' perspectives and compare those descriptions to their own conclusions about the characters. Questions like the following could encourage comparisons of characters' and students' perspectives: Who is to blame? (according to Charley, George, You, etc.) For what? Why? Did George have a right to the cave? Why or why not? More of a right than the gang? Why or why not?

If using the question from the original about Charley's plan of revenge, students could develop insight into how values generate criteria of evaluation by extending discussion. Possible questions include the following: Why does Charley think his plan is a good one? What does he value that leads him to make that plan? What do you think the results of his plan are likely to be? What do you think of his plan? ***S-14*** Why? What values of yours lead you to this conclusion? What would be the likely results of acting on your values in this situation? Why do you think Charley doesn't hold these values? Should Charley seek revenge? Should he use another method of getting revenge instead? Why or why not? (Discuss at length.)

Students could develop insight into sociocentricity through examination of Pat's attitudes, those of his gang, and Charley's experience breaking away from the gang, but retaining gang attitudes. ***S-2*** Students could discuss why a group of children would follow another child, what beliefs and values they shared, what assumptions the gang makes, etc. "Why was Pat leader? What can we infer about the gang's values? Why? Why was Charley out of the gang?" They could compare gang values and assumptions with those of other groups such as friends, countries, etc. (Some common ideas follow: You are either in the group or out of the group. Being in the group has certain requirements. [Requirements for different groups could be compared.] The group's desires are more important than the needs and wants of those not in the group. Our group is the most important. If the desires of two groups conflict, you should chose ours. Some members of the group are more important than others.) The class could discuss reasons for such assumptions, and evaluate the consequences of making them. Students could make their own group assumptions explicit, and perhaps evaluate them - assumptions about clothes, interests, possessions, speech and behavior in and out of class.

The class could go through the story and discuss how Charley felt at various points, relating his feelings to his thoughts. ***S-4*** "What situation was he in when he felt that way? Were his feelings mixed? How did he see or interpret the situation? What did he think about the situation? What else did he think? Why did he feel that emotion then? What does this tell us about his assumptions? Personality? How else could he have seen this situation? If he had seen it that way, how would he have felt about it? How might he have acted? Is his thinking consistent, or are there inconsistencies or contradictions? Does he notice them? Why or why not?

The teacher can modify questions used throughout the lesson to allow students practice using critical vocabulary. ***S-23*** For example, rather than asking *What clues told you that George was an educated man?"* you could ask, "What can you infer about George? What evidence led you to that inference?" Other possibilities include the following: What assumption are you making? From Pat's perspective, what did Charley do wrong? Why did Charley conclude that the cave was George's? How did the gang members interpret Charley's behavior?

The Scapegoat

(Language Arts - 6th Grade)

Objectives of the Remodelled Plan

The students will:

- engage in dialogical thinking by exploring several points of view expressed in a story
- discuss the affect on the reader of the author's decision to write in first person
- pursue at length the root conflict of the main character between wanting to avoid trouble with her sister and disagreeing with her
- discuss various possible consequences of the main character's options
- generate and assess solutions to the problem in the story by comparing various characters' statements of the problem with their own, developing criteria for evaluation, and distinguishing relevant from irrelevant facts
- explore the sociocentricity of some of the characters in the story

ORIGINAL LESSON PLAN

Abstract

The lesson contains a story about the trouble which arises when the school band leader (Mr. Franks) appoints a talented new girl, Nancy, solo clarinetist. Most of the band members resent the decision as a slight to Katheryn (formerly best clarinetist at school). Katheryn's twin sister Margaret, however, agrees with the decision, and is appalled to learn that band members are refusing to sell concert tickets in order to get back at Mr. Franks, though they display no resentment to Nancy. Margaret, deciding that her twin has no desire to be fair about the issue, and wanting to avoid a breach, avoids discussing the problem with her sister. After Nancy fakes incompetence and tries to back out of her new position, the twins overhear Nancy playing a difficult piece beautifully. Katheryn changes her mind and tells the rest of the band they were wrong to resent the change. Margaret tells the story.

When introducing the material, the teachers' notes ask questions which encourage students to think about what it's like to be a newcomer. For follow-up, it asks questions which require students to write diary entries for Nancy, discuss differences in the story had it been told by other characters, role play a discussion between the twins, make and justify inferences, and identify cause and effect.

from *Networks* by Marjorie Seddon Johnson, et al.
©1977, American Book Company. pp. 229c-242b.

Critique

We chose this lesson for its excellence, as much as its failings. The story contains fruitful material for lengthy student discussions about the ethical implications of story characters' actions, and solutions to conflicts. Text strengths lie in the choice of material and the questions which encourage students to view the central conflict from different points of view.

Confusions

Unfortunately, the title of the story is misused - there can be no scapegoat when no one has done anything wrong. Mr. Franks cannot be construed as bearing the blame for the wrongdoing of another, since there is no reason to believe that Nancy has done anything wrong. A scapegoat takes the blame for another's wrong action. Though the bandmembers unjustly blame Mr. Franks, their mistake lies in claiming the action to have been wrong, not blaming the wrong person. This lesson, therefore, encourages a sloppy use of language. Students can discuss the discrepancy between the story and its title, and suggest other titles.

One suggested question misuses the term 'conclude.' *Why did Margaret conclude that Nancy had memorized the tune for the tryouts?* It is clear in the story that she wondered, possibly suspected, but did not feel she had sufficient evidence to draw such a conclusion. Other questions make this clear. The original question, if used, should be reworded or critiqued.

Some suggested answers also show confused thought. "*Was the scapegoat blamed unjustly? (Yes. 'Anyway, Mr. Franks isn't pushing you around.')*" The suggested answer doesn't prove the inference; it gives Margaret's perspective. The answer to how students know Margaret disagrees is also misleading since the citation it gives happens after we learn her opinion.

Point of view

The text uses, though fails to distinguish or adequately explore the connections between two senses of 'point of view:' perspectives on the situation and the literary sense of the voice of selection. Most of the time is spent on the latter. The 'identifying point of view' activity which has students distinguish first person from third person sentences should be dropped, in favor of more extended discussion of the affect of the narrator's point of view on the reader.

The activities of writing Nancy's diary entries, role playing a discussion between the sisters, and discussing the effect of changing the point of view of the story could be extended and integrated into a deeper and more thorough discussion of the various perspectives expressed in the story.

Opportunities for fostering critical thought

Rather than pursuing Margaret's dilemma in depth, the text merely asks students to identify her reason for not discussing the situation with Kathryn, and describe how they would have behaved. A more detailed and extended discussion could require students to grapple with the many aspects and difficulties of such a decision, similar to many problems children face.

The text neglects exploration of the sociocentric principle of 'favoring our own over a stranger.' Though the bandmembers don't directly mistreat Nancy, they are ruled by hidden sociocentricity which they try to rationalize. Students can gain useful insight into the irrationality and dishonesty of sociocentricity by discussing the characters' behavior and remarks.

Strategies Used to Remodel

S-17	clarifying or critiquing text
S-20	practicing dialogical thinking
S-13	raising and pursuing root questions
S-30	exploring implications and consequences

S-14	evaluating actions or policies
S-15	generating or assessing solutions
S-11	developing criteria for evaluation
S-26	distinguishing relevant from irrelevant facts
S-2	developing insight into ego/sociocentricity
S-4	exploring thoughts underlying feelings

REMODELLED LESSON PLAN

We have divided the remodel into the following sections: 1) Introduction, 2) Discussions of perspectives, 3) The problem, and 4) Sociocentricity.

1) Introduction

After students have read the story, have them retell it. The class could have a more detailed discussion of the idea of a scapegoat. After students have looked the word up, have them discuss criteria for determining when it would apply. Have them compare those to the situation in the story. ***S-17*** "Who was blamed? Was the blame justified? Should someone else have been blamed instead? For what? Does the word fit this situation?" Students could then suggest better titles.

When having students reread the story, the teacher could have them keep notes of the perspectives of the various characters: Margaret, Kathryn, Nancy, and Phyllis. Under the appropriate headings, students can record details expressing or reflecting each character's point of view.

2) Perspectives

The class can then discuss and expand on each point of view. ***S-20*** Questions such as the following could be used: What was this character's situation? How does it compare to that of the others? What does this character think? Feel? Do? Say? Why? What ideas guide this character? How does this character define the problem? What assumptions does she make? Why? What does she value? How do her values compare to those of the other characters?

Students could also compare the story to what it would be like told from other points of view, and how that would have affected the reader, and speculate about why the author chose to write it as she did. ***S-17*** They could also discuss whether this was the best choice.

3) The Problem

Students could explore the sisters' lack of communication in greater depth, and evaluate it. Students could mention as many pro's and cons of their silence as they can think of, compare the sisters' attitudes and situations and suggest alternative behaviors and discuss the consequences of each possibility. ***S-13*** The following original and new questions might be used: *What caused silence between Margaret and Katheryn?* (The original answer, citing Margarets' reluctance, is incomplete, since neither sister was anxious to talk.) *Why might Margaret want to avoid arguing with her sister?* Why might Katheryn have avoided discussion? How did their disagreement affect their relationship? ***S-30*** What may have happened if they had talked? (Encourage multiple responses, or have groups of students use the suggested role play activity, and have the class compare the results of the different groups.) What do you think is the best thing to do in this kind of situation? ***S-14*** (Rather than asking students what they would have done.) Why? Why did Phyllis say "some twin you are?" What does this tell us about Phyllis' values? Why is a situation like this difficult?

Consider asking the class to evaluate the different solutions acted on by the various characters. ***S-15*** First, if students have not already formulated their own statement of the problem, ask them to do so. Then ask, "Who is affected by the problem? What are the criteria for a good solution/What would a good solution require? ***S-11*** What would someone have to know to determine which solution would work? ***S-26*** What solution does each character come up with? What values are assumed by the solutions? How do these solutions compare? Do any meet the criteria of a good solution? Why or why not? What solutions would?"

4) Sociocentricity *S-2*

Students could discuss some of the characters' attitudes about letting an 'outsider' and 'newcomer' take the top clarinet spot in the band. Such a discussion could help students consider the unfairness of sociocentric attitudes, as well as bring a clearer sense of detail to what 'group think' and 'us vs. them' means, how it manifests itself, and how people try to hide it. The class could discuss such questions as: Who used the word 'outsider'? What does it mean? What attitudes and feeling does that word express? What does Katheryn mean by her speech toward the end of the story? Why does she think the children were being dishonest with themselves? What did Phyllis say was her reason for not agreeing with Mr. Franks? For saying that Katheryn was cheated? Why was she angry with Margaret? If Katheryn was right that the children weren't being honest with themselves, why weren't they? Why didn't they give their real reasons? Why did they feel as they did? Why is it often hard to disagree with others in your group? Was Margaret being disloyal? Were the others? Does being loyal to a group (or a twin) require always agreeing with and supporting the groups beliefs? Why or why not?

The class could explore the thoughts underlying Margaret's feelings as they change during the story. Students could also discuss Katheryn's change of heart at length. Have them discuss her feelings and reasoning when she was upset with Mr. Franks, and her feelings and reasoning after she heard Nancy play at the end of the story. ***S-4***

In order to think critically about issues we must first be able to state the issue clearly. The more completely, clearly, and accurately the issue is formulated, the easier and more helpful the discussion of its settlement.

Critical Thinking

(Language Arts - 6th Grade)

Objectives of the Remodelled Plan

The students will:

- develop their perspectives through dialectical exchange, writing, and argument analysis and evaluation
- clarify claims and ideas arising in group discussions
- practice critical thought by writing and revising argumentative essays

ORIGINAL LESSON PLAN

Abstract

We have extracted three lessons on reasoning. The first lesson, called "Critical Thinking," uses fake ads to introduce 'indicator words' (if/then, because, since, either/or, therefore). Students write sentences using indicator words and explain their reasoning. They rewrite ads in 'if/then' form and write evaluations of the ads.

The second lesson has two sections: "Expressing an Opinion," focuses on giving reasons for opinions. Students study a flow chart which records the number of contributions of each participant in a discussion. They break into groups to discuss their opinions and make charts of their discussions. Students then write essays stating and justifying their opinions. The second part of the lesson, "Fact, Opinion, and Prejudice," has students look up those words (and 'propaganda') in the dictionary. Then they decide which of 10 sentences expresses fact, opinion, or prejudice.

The third lesson also has two parts. "Denotation and Connotation" introduces these terms ('dictionary meaning' vs. 'emotional meaning') using a diagram with the word 'house,' in the center, and such words as 'shack,' 'castle, 'hovel,' and 'apartment' around it. Students read and discuss two paragraphs about the same scene, one neutral the other negative, and distinguish 'friendly,' 'fighting,' and 'neutral' words. Finally, in "Inferences from Word Connotations," students read five pairs of sentences and determine which of each pair 'suggests dislike or disapproval' and which 'approval.'

from *Our Language Today*, David A. Conlin, et al.
American Book Co. ©1978 pp. 193-7, G59-61

Critique I

Introduction

We chose these lessons because they address reasoning and language. Though this handbook mainly focuses on incorporating critical thinking into other lessons, lessons specifically on critical thinking can also be useful. Individually and collectively these lessons suffer from many serious flaws and misunderstandings, display fuzziness of thought, misuse terms, and lack critical insight. As a whole, the lessons downplay evaluation of reasoning (where mentioned or suggested, they give no guidance and use confusing language). They nowhere suggest evaluating the relevance of support to conclusions. The fact/opinion distinction underlies them as does the confusion of objectivity with lack of 'connotation,' and bias with emotional or evaluative language. Though they address the importance of giving reasons for beliefs, they fail to suggest the importance of considering opposing views, or strengthening one's reasoning by weeding out or altering unjustified beliefs. We have written a critique of and remodel for each lesson.

The First Lesson

The first lesson does not explain how merely becoming aware of 'indicator' words helps students to think more critically. The claim is especially puzzling since the presence of the words discussed does not necessarily signal an argument or piece of reasoning. Several of the text's examples do not express reasoning. The 'because' in *"I was permitted to watch television because I finished my homework,"* for example, expresses a causal relationship. I do not supply "I finished my homework" as a reason to convince you that "I was permitted to watch television."

The advertising statements are not arguments, but premises. (A complete argument, a conclusion supported by reasons, would be, "If you use this product on your hair, then you will be handsome. Since you want to be handsome, you should use this product.") Though having students make these kinds of key premises from ads explicit as 'if/then' statements is a useful first step toward understanding reasoning, it is, by itself, incomplete. This, however, the lesson refers to as 'analysis.'

Students rate ads they have brought in, but they do not discuss the standards they use, or distinguish different kinds of faults. The text suggests, but fails to explain, these terms *"acceptable (logical); questionable (debatable); ridiculous (illogical)."*

Strategies Used to Remodel

S-23	using critical vocabulary
S-14	evaluating arguments
S-8	developing one's perspective

REMODELLED LESSON PLAN I

We have restructured these lessons into a unified unit culminating in a well thought out argumentative essay. Similar units, repeated over the course of the year can greatly improve both reasoning and its expression. We've structured this unit to more or less coincide with the original. Class discussions can be used to introduce and clarify aspects of critical thought. Group discussions allow development and clarification of positions, and exchange between opposing views.

The teacher could introduce argument analysis and critique using ads, as in the original. If so, we recommend that you focus on ads aimed at children. Similar treatment could be given any arguments which the teacher uses instead of ads (including students' reasoning). Students could describe ads which give a reason (or reasons) for using a product or service. The teacher might develop students' use of vocabulary by having them rephrase ads into explicit premises, assumptions, and conclusions. *S-23* To have students identify the conclusion, ask, "What is the *conclusion* ? What is the point of the argument? What statement is this ad trying to convince you to believe?" ("Therefore, you should buy *our product* .") Then ask, "What reason is given? Is it stated or implied? Is the reasoning complete, or is there a hidden claim, or *assumption* ?" When one ad has been made explicit and discussed, have students practice on others. Students could then evaluate the ads in a class discussion. ***S-14*** You could have them give reasons for their evaluations, or guide discussion with questions like the following: "Does it give evidence? What? Are the claims clear? What do they mean? Could they mean something else?/Are they *ambiguous*? Questionable? Complete? What is left out? Is the reason *relevant* - should it affect our conclusion? Why or why not? Does the ad present a strong argument? Should we accept the conclusion? Why or why not? What else would we need to find out to decide?"

For unit discussion groups and essay topics, students could brainstorm issues. The issues should not be mere questions of preference. Perhaps an issue which arose in a previous class discussion would be interesting, or a school or class issue or problem. Or such questions as, "What sports are the most dangerous? What should children be allowed and not allowed to do? What makes a book a good book?"

Each student then picks an issue and writes an essay. Students should state their positions, and support them with the best reasons they can. This is the first draft of their argumentative essays. ***S-8***

Critique II

The Second Lesson

The second lesson, "Expressing an Opinion," spends too much time on the flow chart, itself of questionable value. It draws attention to the number of remarks, then claims that the most frequent speaker "*was not monopolizing the discussion. He presented some very excellent reasons for his opinions.*" It points out that the flow chart tells you nothing about the quality of ideas, and tells the teacher to "*Caution against monopolizing the conversation.*" It gives no idea of how to distinguish monopolizing discussion from presenting excellent reasons. Since the chart tells nothing but frequency of participation, it is unclear why students are told to make them during their discussions. Furthermore, presenting good reasons though valuable, is only half of a discussion. The text fails to mention the importance of allowing others to speak, and listening carefully and fairmindedly. It mainly focuses on how to defend opinions, not how to shape them more reasonably.

Before students break into groups, the text tells them to make a list of topics, and makes these suggestions as a starter: *Do you like classical music, or country western or both? Do you prefer hockey, soccer, or tennis? How do you think some TV programs could be improved?*" The first two questions are especially poor topics either for a rational discussion or for practice in giving and assessing reasons. Questions of preference or mere opinion admit of little, if any, evidence, argument, or assessment.

Only in the second "Additional Activities" are students asked about the content of the discussion. They are asked to "*mentally review the contributions*" and "*decide whether the opinions expressed were logical, debatable, or unproductive.*" They are not asked to discuss the worth of the reasons, (instead, they are asked to think about the contributions and respond) or how reasons could be evaluated. The choice of terms 'logical,' 'debatable,' and 'unproductive,' is at best confusing. 'Logical,' used throughout the unit, is a positive term which we suppose could mean 'true statement and relevant.' 'Debatable,' then, could mean 'statement, the truth of which is questionable'. And 'unproductive' perhaps means 'irrelevant.' Regardless, it is unfortunate that clearer and more accurate terms were not used or explanations given. The text's approach allows reactions that are too often impressionistic and based on prejudice or lack of understanding. ('This seems ridiculous to me!')

The exercise for this section has students write an essay giving reasons for "*a strong opinion*," encouraging them to "*get something off your chest*," and "*let off steam*." These directions promote uncritical, unfairminded thought, and overstating one's position, rather than rational, accurate, clear, fairminded thought. As a rule, our thinking is not at its best when we are "letting off steam."

The second part of the lesson, on fact, opinion, prejudice, falls prey to the usual problems of the 'fact/opinion' distinction. The text asks students which kind of statement "*can you depend upon for the most reliable information?*" Though the motive of having students distinguish questionable from acceptable claims is worthwhile, the text's approach does not accomplish this purpose. It produces an unquestioning attitude of acceptance for statements that *seem* factual, though factual (empirical) claims are not necessarily reliable, and students can't necessarily tell if so-called 'facts' are true. Facts, when used in an argument, may not be complete or relevant. There is not enough about the 'opinions' to determine whether they are mere opinion, or can be well defended. Rather than using the fact, opinion, prejudice distinction, students should distinguish questionable from acceptable claims.

Strategies Used to Remodel

S-21	practicing dialectical thought
S-9	clarifying issues and claims
S-8	developing one's perspective

REMODELLED LESSON PLAN II

For the second lesson, students can form discussion groups with those who chose their topics. (The teacher may have to check composition of the groups to insure that more than one view is represented in each group.) When assigning discussion groups, emphasize the importance of listening carefully and open-mindedly to other arguments. The teacher may want to have students take notes, and include opposing views in their essays. Students should argue their positions (that is, give reasons to convince the others to adopt their conclusions). ***S-21*** The groups could note assumptions, find contradictions, and look for strengths and weaknesses in the arguments given. Each group could recap the main points of their discussion to the entire class. Some students may want to revise their essays.

Rather than focussing on "fact, opinion, prejudice," the teacher may want to focus the next section directly on distinguishing claims which need further support, from those which are acceptable without further support. The class could discuss the claims (though not the explanations) from the exercise in the text, and/or claims from other sources. Use questions like the following: Does anyone know whether or not this is true? How do you know? Is there reason to doubt this statement? Why or why not? (Accept it?) What would count for it? ***S-9*** Against it? Stress that one can't judge truth or reasonableness of a claim from its form or appearance. A statement alone doesn't tell us how much or little thought, or what quality of thought went on.

Students can then expand and revise their essays. *S-8* They should give their new positions and arguments, supporting claims which require support. Stress that the strongest arguments take the strengths of other points of view into account.

Students could trade their papers with other members of their groups. Students can comment on the papers requesting clarification or evidence, pointing out where the relevance of claims is unclear, or facts or assumptions are questionable, and correcting distortions of opposing points of view. Students can use the comments when revising their essays.

Critique III

The Third Lesson

According to the text, some words are pure denotation (defined as "dictionary meaning"), neutral (unbiased descriptions using them are 'based on facts'). Other words, 'emotion-arousing words' (with pleasant or unpleasant emotional associations, or favorable or unfavorable connotations - 'friendly' and 'fighting' words), are used to indicate approval or dislike or disapproval. The applications of the various 'emotion-arousing' words are equivalent to those of the neutral words. That is, the facts of the situations are the same. Word choice is a matter of preference, or desired effect on the reader. Emotion arousing words make reading more lively, and often humorous. Presumably, therefore, they have no place in reasoning. Bias is equivalent to use of positive or negative terms (usually the latter). We find the text's explanations confused and misleading.

The next lesson misuses the terms 'denotation' and 'connotation,' terms we find of questionable usefulness. Denotation is the group of things the word applies to, connotation is what you say about the group when you apply that word. What the text considers connotations are also mentioned in dictionaries. The difference between the literal meanings of 'palace' and 'hovel' is as much a question of fact as it is of attitude or emotion. Though, according to the text, the words have the same denotation and different connotations, in fact, their denotations are as different as their connotations.

According to the text, the only difference between the positive and negative sentences is the dislike or approval of the speaker, as though all use of evaluative language is based solely on prejudice, preference, or whim.

According to the text, bias is shown only in word choice or the use of evaluative language. Yet, purely factual passages can also display bias through selection (and omission) presentation and interpretation of fact, and false seemingly 'factual' claims. In the section "Inferences from Word Connotations," students are not encouraged to clarify statements or discuss conditions under which each remark is appropriate or accurate. Again, evaluations are reduced to preference.

Students should be encouraged, not to abandon evaluative language, but to use it appropriately, when its use is justified; not to discount it, but to evaluate it. They should learn to analyze terms, and determine what kinds of facts are required to back them up; set reasonable standards, and apply them fairmindedly. Instead, the text asks for lists of positive and negative words several times, and asks which statements or words from lists "*suggest approval or disapproval.*"

Strategies Used to Remodel

S-10	clarifying ideas
S-9	clarifying issues and claims
S-11	developing criteria for evaluation

REMODELLED LESSON PLAN III

The next lesson can focus on clear and accurate use of and support for evaluative terms. The teacher can use the examples (though not the explanations) from the book, or key terms from one of the discussion groups (say, if one group is having difficulty) or claims and terms from other sources. If discussing the 'house' words (or a similar example), students could distinguish the terms - describing when each most accurately applies. ***S-10*** If using the two paragraphs in the text, students could discuss the evidence and reasoning which could justify the conclusions in the second paragraph. Or they could discuss other conclusions that could be drawn from the first.

The section on "Inferences from Word Connotations" could be used to develop students' ability to clarify claims or ideas. ***S-9*** Ask students to describe behavior to which, say, 'life of the party' would properly apply. ***S-10*** Then ask for examples of 'making a fool of oneself.' Also ask what phrase could apply to both kinds of cases (e.g., was noticeable, or stood out at the party). Students should then discuss features common to each kind of case, and make the standards they use to judge such cases explicit. ***S-11*** Have them use a similar process on other words, phrases, or sentences.

Then each group can meet again to clarify the key claims and terms from their discussion groups. Have students distinguish those terms which all agree apply from disputed terms. They should then clarify the disputed terms or claims by using examples of terms, opposites, and other cases. The standards used for applying the terms or claims should be clarified, the facts required to justify evaluations made explicit.

Students can then write the final drafts of their essays to include clarification of the terms they now feel justified using. Again, stress the importance of taking *all* relevant facts into account, and of presenting opposing views fairly. Emphasize that changing your mind or altering your original position is no crime.

The teacher could have students write group papers, instead of individual papers, giving all sides of the disagreement, and clarifying points of disagreement.

6

Introduction to Remodelling Social Studies Lessons

Each person responds to social issues from one of a variety of mutually inconsistent points of view. Each point of view rests on assumptions about human nature. The unreflective adoption of one point of view as the truth limits our understanding of issues. Therefore, practice in entering into and coming to understand divergent points of view is crucial to social studies.

Children, in their everyday lives, already face the kinds of issues studied in social studies and are developing sets of assumptions about human nature. The assumptions they make concern issues like the following:

> What does it mean to belong to a group? What rights and responsibilities do I have? Does it matter if others do not approve of me? Is it worthwhile to be good? What is most important to me? How am I like and unlike others? Whom should I trust? Who are my friends and enemies? What are people like? What am I like? How do I fit in with others? What are my rights and responsibilities? What are others' rights and responsibilities?

Adults, as well as children, tend to assume the truth of their own unexamined points of view. People often unfairly discredit or misinterpret ideas based on assumptions which differ from their own. In order to address social issues critically, students must continually evaluate their beliefs by contrasting them with opposing beliefs. From the beginning, social studies instruction should encourage the fairminded discussion of a variety of points of view and their underlying beliefs.

Dialogical experience, in which students begin to use critical vocabulary to sharpen their thinking and their sense of logic, is crucial. Words and phrases like 'claims,' 'assumes,' 'implies,' 'supports,' 'is evidence for,' 'is inconsistent with,' 'is relevant to' should be integrated into class discussion. Secondly, instruction should call attention to differing points of view, giving students insight into the multilogical nature of human life and experience.

Humans live in a world of humanly constructed meanings. There is always more than one way to conceptualize human behavior. Humans create points of view, ideologies, and philosophies that often conflict with each other. Students need to understand the implications of this crucial fact: that all accounts of human behavior are expressed within a point of view, that it is not possible to cover all the facts in any account of what happened, that each account stresses some facts over others, that when an account is given (by a teacher, student, or textbook author), the point of view in which it is given should be identified and, where possible, alternative points of view considered, that points of view need to be critically analyzed and assessed.

Of course, this emphasis on the diversity of human perspectives should not be covered in such a way as to imply the view that all points of view are equally valid. Rather, students should learn to value critical thinking skills as tools to help them to assess truth and falsity, insight and prejudice, accurate conception and misconception.

Formulating their own views of historical events and social issues should enable students to synthesize data from divergent sources and to grasp important ideas. Too often, students are asked to recall details with no synthesis, no organizing ideas, and no distinction between details and basic ideas. The end-of-chapter questions often ask for recall of a random selection of details and key facts or ideas. Time lines, maps, charts and graphs are presented and read as mere drill, rather than as aids to understanding deeper issues. There is often an inadequate emphasis on extending insights to analogous situations in other times and places.

Traditional lessons cover several important subjects within social studies: politics, economics, history, and anthropology. They stress the importance of good citizenship, emphasizing pride in country and the importance of people working together. They compare and contrast our culture with other cultures and encourage tolerance. They stress the importance of accepting a diversity of points of view in the student's peer group, community, nation, and world. The materials, however, typically fall short of teaching the subject matter in a way that best fosters critical thought.

Critical education in social studies would focus on basic questions. Details would be taught as illustrations of answers to questions like the following:

> How does society shape the individual? How does the individual shape society? Are some people more important than others? What happened in the past? Why? What was it like to live then? How has it influenced us now? How do I learn what happened in the past? How do I reconcile conflicting accounts? Why are things the way they are now? Why do people disagree? Where do people get their points of view? Where do I get my point of view? Why do people have different cultures? What shapes culture? How does culture influence people? What assumptions underlie my (and others') culture? How do people adapt to where they live? How do people change their environment? What effects do different changes have? What is government for? What is my government like? What are other governments like? How did they come to be that way? What assumptions underlie them? (Similar questions could be asked about economic systems.) How can governments, cultures and economic systems be evaluated? How do people solve problems? How do governments solve problems? How can we evaluate solutions? (Similar questions could be asked regarding technology.)

Traditional lessons seldom discuss the difficulty of being a good citizen (e.g., assessing candidates and propositions before voting); nor do they discuss the positive aspects of dissent, i.e., the benefits of considering different ideas. Important ideals, such as freedom of speech, are taught as mere slogans. Students read, recall, and repeat vague justifications for ideals, rather than deepening their understanding of them. Some texts confuse facts with ideals (especially about the U.S.) and genuine patriotism with show of patriotism or false patriotism. The first confusion discourages us from seeing ourselves, others, and the world accurately; we often don't see the gap between how we want to be and how we are. The second encourages us to reject constructive criticism.

Some Common Problems with Social Studies Texts

- Although the texts treat diversity of opinion as necessary, beliefs are not presented as subject to examination or critique. Students are encouraged to accept that others have different beliefs, but are not encouraged to understand why. Yet it is by understanding how others have reached their conclusions, that students can learn what other points of view have to offer, and can strengthen their own views accordingly. The text writers's emphasis on simple tolerance serves to end discussion, whereas students should learn to consider judgments as subject to rational assessment.

- When contrasting our nation with others, students are not encouraged to recognize and combat their own natural ethnocentricity. Texts encourage ethnocentricity in two ways. First, the text writers often present American ideals as uniquely American when, in fact, every nation shares at least some of them. Second, although beliefs about the state of the world, and about how to achieve ideals vary greatly, the American version of these is often treated as universal or self-evident. Students should learn not to confuse their limited perspective with universal belief.

- Texts often wantonly omit crucial concepts, relationships and details. For example, in discussing the opening of trade relations between Japan and the U. S., one text failed to mention why the Japanese had cut off relations with the West. (See also The Birth of Modern Europe, Spanish California, and People and Earth.)

- Most texts treat important subjects superficially. There seems to be concern for the outward appearance of things rather than their underlying dynamics. Many texts also tend to approach the heart of the matter and stop short of further exploration. Topics are introduced, treated briefly, and dropped. History, for instance, is presented as a series of events, narrative, chronology. Texts describe events briefly, but seldom mention how people perceived them, why they accepted or resisted them, or what ideas and assumptions influenced them and how. Texts cover different political systems by mentioning the titles of political offices. Most discussions of religion reflect the same superficiality. Texts emphasize names of deities, rituals, and practices. Beliefs are not explored in sufficient depth; the inner life is ignored, the personal dimension omitted.

- In many instances, texts encourage student passivity by providing all the answers. After lengthy map skills units, students are asked to apply those skills to answer simple questions. However, they are not held accountable for providing the answers on their own. Texts usually err by asking questions students should be able to answer on their own, and immediately providing the answer. Once a student understands the system, she knows that she doesn't have to stop and think for herself, because the text will do it for her in the next sentence.

- Many texts go to great lengths 'introducing' land forms to students, most of whom, no doubt, could themselves distinguish mountains from valleys, oceans from deserts, etc.

- Texts often emphasize the ideal or theoretical models of government, economic systems, and institutions without exploring real (hidden) sources of power and change. The difficulty and complexity of problems are alluded to or even mentioned, but briefly ("This is a difficult problem.") without exploring *why*, that is, why wouldn't this seemingly obvious solution work?

- Primary sources, when used or referred to at all, are not examined as sources of information or explications of important attitudes and beliefs which shaped events. Their assessment is not discussed, nor are influences which shaped them. Texts fail to mention, for example, that most history was written by victors of wars, and by the few educated people. Much information about other points of view has been lost.

- Explanations are often abstract and lack detail or connection to that which they explain, leaving students with a vague understanding. Texts fail to answer such questions as: How did this bring about that? What was going on in people's minds? Why? How did that relate to the rest of society? Why is this valued? Without context, the little bits have little meaning and therefore, if remembered at all, serve no function, and cannot be recalled for use.

To help teachers generalize from specific remodelling moves, and so facilitate their grasp of strong sense critical thinking and how it can be taught, we have devised a list of teaching strategies. Each strategy highlights an aspect of critical thought. Each use illustrates how that aspect can be encouraged in students.

People and Earth

(Social Studies - 4th Grade)

Objectives of the Remodelled Plan

The students will:

- apply map skills to understanding population distribution, thereby exercising independent thought
- identify, and explore the implications of, the main factors which affect population distribution
- refine generalizations and correct textual oversimplifications about population distribution

ORIGINAL LESSON PLAN

Abstract

This lesson focuses on world-wide population distribution. Students are asked to use a population map to determine which areas are heavily and sparsely populated. Reasons for these patterns are given: Arctic - too cold, Sahara desert - too hot, insufficient water, Amazon rain-forest and mountainous areas - unsuitable for farming. Population density is correlated with availability of level land, fertile soil, water for growing crops, comfortable climate. Students are asked to use physical and climate maps to classify land forms and climates that support large populations. The teacher's notes suggest brief questions dealing with the implications of crowding and speculations about future population patterns (domes on the ocean floor, space stations, etc.)

from *California: People of a Region*, Level 4. ©1984
by McGraw Hill, Webster Division.
pp. 60-63.

Critique

General weaknesses

In this critique we first consider the global weaknesses of the original lesson, especially its tendency to oversimplify. Then we examine specific examples of those weaknesses from the text, noting important factors which have been omitted in explaining past population distribution trends. We critique the text's discussion of future population trends and conclude by suggesting improvements in the text's questions.

We chose this lesson because it offers an opportunity to apply heavily emphasized map skills to understanding population distribution. One failure of the lesson is that it does all the work for students, and thus does not require them to use what they already know from previous study, or to use their map reading skills. Students should experience the pleasure of independent thought and discovery. It will enliven the learning experience for students and give them a sense of purpose in studying as they move toward the goal of becoming autonomous learners and thinkers. The lesson objectives focus on 'locating and listing,' rather than on understanding and interpreting the data. Critical thinking must go beyond the simple accumulation of information to making it meaningful in a larger framework.

The most serious flaw in this lesson is that the student text situates the question of population distribution in the pre-modern technology era, giving a false and overly simplistic account of why people live where they do today. It emphasizes temperature, fertile soil, flat land and availability of water as the principal factors of population distribution. It leaves out the role of modern technology in supporting large populations in areas which are not located in fertile, temperate agricultural zones. It does not account for the dynamics of the industrial/ manufacturing age in population distribution: proximity to resources, availability of jobs, ease of transportation. Access to waterways, though not dealt with at all, is of vital importance in understanding population distribution, both historically and currently. Finally, the role of government administrative headquarters in attracting substantial population is ignored.

Specific examples and omissions

The text implies that no large population centers exist in desert areas since food *"does not grow in the desert."* How is one to account for cities such as Phoenix and Los Angeles? Although the text mentions mining and timber harvesting as activities which take place in mountainous areas, it leaves the impression that, since there is not much fertile land there, one could not expect to find large population centers there. Cities such as Amsterdam which base their large population on trading and transportation are not mentioned at all. The subsistence farming model is also inadequate to explain why a region such as the U.S. Mid-west, though ideal for food production, is lightly populated. Since less than 3% of the U.S. population is engaged in farming, good farming potential couldn't significantly affect population distribution.

In looking at future population trends, the text seems to ignore the movement of our economy toward an information/service emphasis. We are moving into that type of economy now, and it would be an interesting and useful thing for students to consider what changes they might expect in population patterns in the light of this new development. Although the notes to the teacher suggest that the implications of population growth for the future be discussed (p.62), they derail the discussion into exotic, futuristic *"solutions such as living in space stations, in enclosed domes, and on the ocean floor in 'bubbles of air.'"* What do people in Detroit who have lost auto production jobs do while waiting for this technology? It would seem more realistic and practical to confront population problems with resources and technology currently available. Furthermore, seeing economic shifts from agricultural to manufacturing to information will provide a useful framework for understanding a variety of social phenomena.

Critique of text questions

The 'Concluding Questions' ask, *"Where do large cities get food? (transported from farm areas.)"* but do not follow up with a discussion of the implications. They do not correlate at all with the student text. Another question is, *"What happens when many people live in a small space? (Homes are smaller. More food and more goods, services, and jobs are needed.)"* This is an important issue to consider, but it seems to go far beyond the scope of the student text. We recommend dropping it in connection with this particular lesson.

In the Review section, questions 1-6 are a jumble of factual recall items which do not probe implications and have little coherence or contribution to understanding population distribution. Question 7 reinforces the text's emphasis on suitability for subsistence farming as the main criterion for land that is "good for people to live on." We would use questions 8 and 9 at the beginning of the lesson to foster independent thought, rather than tacking them on after students have read the lesson. The text's placement of these questions in the review section makes them into factual recall items rather than the stimulus for independent, critical thought.

Strategies Used to Remodel

S-1	exercising independent thought
S-30	exploring implications and consequences
S-31	refining generalizations
S-6	avoiding oversimplification
S-17	clarifying or critiquing text
S-7	transferring ideas to new contexts

REMODELLED LESSON PLAN

Our remodel concentrates on having students use maps and their own background knowledge to understand population distribution before they read the text. Then we look at the influence of types of economy and technology on population trends, considering what changes could occur in the future. The remodel is divided as follows: 1) Where is world population concentrated and not concentrated? 2) Climate, terrain and other factors which influence population distribution. 3) Read and critique text. 4) Economic factors and population distribution, and 5) Application.

1) Where is population concentrated?

One way to begin, would be to direct the class to study the population maps on pp. 60-61. Then you might ask students for their observations on what the maps tell them about population distribution. ***S-1*** We do not think you need to explain or interpret the information gathered at this point. It would probably be enough to ask students to briefly summarize what they can say about the distribution of earth's population by studying the maps.

Next, you could explain that with the help of a few additional maps students can use their reasoning skills and what they already know to understand why most people live crowded together rather than evenly spread out. They will need to use the physical map on pp. 48-49 and the climate map on pp. 52-53. If interested students would like more detailed maps, have them use an atlas or encyclopedia to supplement this lesson. Explain that after they have made use of the maps to answer some questions they will read the chapter to see if it correlates with their understanding of population distribution. You might suggest to them that they will probably come up with things the text doesn't mention, to reinforce their confidence in their abilities, independent of textual confirmation. ***S-1***

2) Climate, terrain and other factors which influence population distribution

First, you might want to focus on the climate and population maps. You could ask, (Review question 9) "*What climate areas do most people live in? Why?* How does climate affect human life? ***S-30*** Why don't many people live in the Arctic? The Sahara? The Amazon jungle? Can you think of or find any examples of large cities in any of these types of climate?" ***S-31*** (Siberian cities, Phoenix, Los Angeles, Mombasa (Kenya)) For each example, consider discussing what makes it possible and desirable to have a large population there. ***S-6*** For example, you could ask, "How does Los Angeles get enough water? Phoenix?" One way to summarize this segment of the lesson would be to ask students to state what makes it possible to live in areas like deserts, jungles and the Arctic in this century. You may mention the cost of supporting large populations in inherently hostile climates, not only in terms of expense, but consumption of non-renewable resources.

Next, you could have students look at the population map and the physical map. As they do this, you might ask, (Review question 8) "*What type of terrain do most people live on? Why?* What types of land forms do they generally avoid? Why? ***S-30*** Is it possible to have large population centers in the mountains? ***S-6*** What are some examples of cities in the mountains? ***S-31*** How do they get what they need to survive? What are the costs of living in mountainous terrain?"

A further possibility would be to direct students to look at their maps and list four or five large cities from anywhere around the world. Write the names on the board until you have fifteen or twenty. Then you could ask, "What do these cities have in common in terms of where they are situated?" ***S-1*** (Many will be on a navigable waterway. Some will be capital cities.) You might want to discuss why these are such important factors in attracting and supporting large populations. ***S-30***

3) Read and critique text

You could summarize this part of the lesson emphasizing the types of climate and terrain most conducive to large population concentration, as well as exceptions to these 'rules.' Then you could have students read the text to confirm some of their observations and conclusions. Ask them to note anything they didn't include in their study that they find in the text, and anything they discussed that the text omits. You might make the point that texts are not always complete, and students themselves can go beyond what the text provides. ***S-17***

4) Economic factors and population distribution

As part of a transition to considering contemporary population trends, you may have the students look at all three types of maps, focussing on the U. S. You could ask, "Are there any parts of our country which are good for food production, have enough water and are not heavily populated? ***S-31*** (Mid-west) Why aren't they? What is at work here?" You might want to point out to students that because of modern equipment a very few people can produce enough food for the whole country. You could add that economies have changed from the agricultural to a manufacturing/industrial type. This newer type of economy affects population distribution in its own way. Consider asking, "What kind of a location would be important for a textile mill, a steel mill, an automobile factory? (proximity to resources; good, cheap transportation) Why would people move to a town with a steel mill? (jobs) If the mill closes, what happens to the people? Will all of them stay there? What will determine where they go? What are some examples of cities where this has happened?" (Detroit, Houston, Pittsburgh) ***S-7***

Now you might discuss with students the observation that our economy seems to be in a period of change where heavy industrial production is being phased out or done abroad, and we are moving into an information processing/service type of economy. Discuss what kind of work people would do in this kind of an economy. (Computer industries, high-tech, finance, etc.) What kinds of population shifts might occur in this new type of economy? ***S-1*** You might mention that population is shifting south and west. You could follow that by asking students why they think this is happening. Remind students that change is sure to happen, and that they can understand why these changes in population distribution take place, if they consider what people need to live and what technology is capable of doing to assist them.

5) Application

As a concluding assignment, the teacher could prepare a list of large cities from around the world. Each student could then select three, research relevant information about climate, terrain, proximity to waterways, resources, types of jobs available, seat of government, etc., and explain their size. It might be good to have them note any problems related to temperature, ease of importing food, water, etc. Then students could present their information either to the class as a whole or to each other in groups of four or five.

Get experience in lesson plan remodelling: How can I take full advantage of the strengths of this lesson? How can this material best be used to foster critical insights? Which questions or activities should I drop, use, alter or expand upon? What should I add to it?

Beliefs

(Social Studies - 4th Grade)
For original, see appendix.

Objectives of the Remodelled Plan

The students will:

- clarify 'belief' and 'culturally shared beliefs' through Socratic questioning
- become aware of their culture by identifying manifestations of some culturally shared beliefs and probing their underlying structure by examining assumptions, implications, etc.
- develop self-awareness by making explicit processes by which they have arrived at some beliefs
- use reciprocity to appreciate why members of another culture have different beliefs
- clarify text uses of the term 'belief'

ORIGINAL LESSON PLAN

Abstract

This chapter on beliefs occurs in a unit on culture. It emphasizes the following points: beliefs are one aspect of culture, beliefs grow out of values, beliefs affect other aspects of culture, cars are important in our culture, Aztec lack of understanding of and control over the environment led to belief in nature deities. Students read a short passage about a space traveler who mistakes cars for monsters and discuss their feelings about cars, as an introduction to the importance of cars in our culture. Students survey television ads noting how many emphasize cars, and discuss some effects of valuing cars, e.g., drive-through restaurants. They are asked to put themselves in the Aztecs' place. They identify aspects of nature associated with gods from many cultures pictured in their texts. Students choose a category of culture, (language, technology, institutions) name beliefs relating to the category, and provide examples of the effects of those beliefs on the chosen aspect of culture.

from *Planet Earth*, James M. Oswald. © 1976 by Houghton Mifflin. pp. T124-131. Used with permission.

Critique

Introduction

Since the problem of establishing rational beliefs and of up-rooting and eliminating irrational beliefs is at the heart of critical and fairminded thought, this is a particularly important lesson. Indeed, the problem of belief is so important it should serve as a background for many lesson plans and be a re-emergent theme in school as a whole. In any case, it is an ideal topic for a general Socratic discussion, which should help students begin to sort out a number of important distinctions and to organize their thinking across a variety of domains. In-depth discussion of culturally shared beliefs is also crucial to understanding the basic concept, 'culture,' and to developing fairmindedness toward other cultures. Though the lesson has some potential for developing crucial insights, it is marred by confusion, superficiality, lack of insight into the effect of culture on the individual, and irrelevant and unintegrated passages and activities.

Confusion in the text

The text suffers from a confusion of the multiple meanings of 'belief.' At first, the text explains that beliefs have to do with values, e.g., "Cars are important." The term retains this meaning through most of the lesson, (*"Out of their values grow many beliefs." "Show pictures of people working or demonstrating for a cause in which they believe."*) Then, without mentioning the change in meaning, the text uses the term in a much broader sense. When discussing the Aztec beliefs in gods of sun, rain, etc,. 'belief' means, "Anything someone thinks is true," e.g., "There is a sun god." (*"Many other humans have believed in gods and goddesses of air, water, sun and land." "Have students speculate about how Aztec beliefs in nature deities might affect the other categories of culture."*) This shift in meaning is ignored. At the end of the lesson, the meaning of 'belief' shifts back to that used at first. For instance, teachers are instructed to give such examples of beliefs as, *"One should say 'thank-you' when one is given something."* Since the term was explained in a narrow sense in the beginning of the lesson, attention should have been called to the later, broader sense. The problem can be corrected by having students distinguish the two ideas.

Though the topic is beliefs as an aspect of culture, the lesson frequently cites examples of personal/individual beliefs that are not culturally shared (e.g., protest movements promoting certain beliefs). Examples of individuals' independent judgments shouldn't be juxtaposed with the idea of beliefs of our culture, without distinguishing these two sources of belief. Again, confused, unclear thought is fostered in the students. The class could make this distinction. To keep to the structure of the text, those beliefs which are an aspect of culture should be emphasized, the rest downplayed. Our remodel, however, takes this opportunity to explore beliefs in general.

The lesson emphasizes the idea that beliefs affect other aspects of culture. It overlooks the effect of other aspects of culture on beliefs, and so inadvertently confuses students. For instance, the text suggests that the belief that *"people should wear seat belts."* shows an effect of beliefs on technology. Yet, in this case, danger inherent in the use of cars has led to the belief in the importance of seat belts. The cause and effect relationship is the opposite of what the text claims. The class could add discussion of how culture affects beliefs, to the text discussion of how beliefs affect culture.

The discussion about how some beliefs lead to others is misleading. *"For example, someone who feels that the health of people is important may believe that all people have the right to inexpensive medical care.... (a belief that all should have medical care might cause a person to become a doctor or nurse who works with needy people in an impoverished area.)"* The text fails to point out that the conclusions reached were not based solely on the belief mentioned, but more on assumptions, or systems of beliefs. Also, the text fails to note that a number of alternatives could stem from a belief or set of beliefs. The fact/opinion distinction underlies this lesson.

Superficiality in the text

More seriously, however, the lesson ignores the crucial point of discussing beliefs as an aspect of culture. We have many of our beliefs simply because we were raised in our culture. We have internalized beliefs prevalent in our culture, e.g., belief in the superiority of the two-party system. Although the lesson tries to encourage fairminded consideration of a different culture in its discussion of the Aztecs, it fails because it stops just short of suggesting that each person independently arrives at culturally shared beliefs. The teachers' text suggests that the teacher, *"Have students imagine what it would be like to live in the valley of*

Mexico in Aztec times. How would they feel when heavy rains caused floods? Would they think there might be some being that was causing the rain?" "The discussion of the Aztecs will help to build the idea that beliefs often develop out of events occurring in the natural system." The text never alludes to the idea that, when everyone around us believes something, we generally accept that belief, or that it often seems impossible to doubt or disbelieve it. This insight is crucial to developing understanding of and respect for other cultures, as well as the self-understanding the text tries to foster.

The importance of cars in our culture is a good introduction to cultural beliefs; it is true, easy to grasp, and has important implications. Yet, by itself it is insufficient; a superficial aspect of culture. The value is not basic, but arises from more fundamental values (independence, convenience, variety, speed, time, etc.) The lesson doesn't have students discuss other ways these values affect us. Students should spend substantial time making our culture's fundamental beliefs explicit, to be in a better position to assess them, and to better understand themselves.

The lesson also treats cars themselves superficially, as merely means of transportation, ignoring the other aspects of our society's relationship to cars (status, image, etc.) Although the television survey is an excellent way of showing how we can recognize beliefs by looking behind words and behavior, better use could be made of it. The text uses it simply to make the point that cars are important in our culture. Students can practice analytic skills by examining ads for associated ideas, and so deepen their insight into their culture.

Irrelevant and unintegrated passages

As it stands, the space traveler story is an irrelevant, unintegrated introduction to the subject of cars. It is introduced as follows: *"Take a look at the way beliefs can affect just one part of people's lives."* The story is then used simply to have students tell what the 'monsters' really were, and then to describe their feelings about cars. Neither the story nor the discussion are relevant to the importance of cars in our culture. Use could be made of the story to point out that there are things we have always known and which are obvious to us because we were raised in our culture, but those things would not be obvious to a stranger without our experiences. Such a use could serve as an introduction to culture as a source of knowledge and beliefs, and so better serve the purposes of the original lesson.

The passage requiring students to tell which elements of nature were associated with pictured gods is irrelevant and should be dropped.

Strategies Used to Remodel

S-19	engaging in Socratic discussion
S-13	raising and pursuing root questions
S-10	clarifying ideas
S-3	exercising reciprocity/fairmindedness
S-17	clarifying or critiquing text
S-25	examining assumptions
S-1	exercising independent thought
S-30	exploring implications and consequences
S-7	transferring ideas to new contexts
S-24	distinguishing ideas

REMODELLED LESSON PLAN

Our remodel consists of 1) an opening Socratic discussion about beliefs, followed by the three main parts of the original lesson. They are: 2) Introducing culturally shared ideas, 3) Exploring the importance of cars in our culture, 4) Understanding another culture. We have added possible further discussion questions at the end, under section 5).

1) Socratic discussion of 'belief'

You could begin the lesson by mentioning some of your beliefs, and having students volunteer theirs. You may then want to conduct a Socratic discussion of 'belief,' using these lead questions, and following up students' responses with probing questions: ***S-19*** What is a belief? Do you have beliefs? Are there different kinds of beliefs? What are they? How do we come to have the beliefs that we have? Why are beliefs important? Are some beliefs more important than others? Why? Why do different people believe different things? Do our beliefs affect the way we act? How can we find out what someone believes? Do you always know what you believe? How can you find out what you believe? What is the difference between mere belief and something known?

2) Introducing 'culturally shared ideas'

When, as in the original, students have read the little story and inferred the identity of the monsters, the story can be used to introduce the idea of 'culturally shared knowledge or ideas.' The teacher could ask, "Did the space traveler have a mistaken belief about cars? How do you know that cars aren't alive? When did you learn about cars? ***S-13*** Why might a space traveler make that mistake? What can we tell about the traveler's home planet? (It doesn't have cars, at least, not like ours, or he would have recognized them.) How did you come to know about cars, what they are for, and what they are like?" ***S-10*** Students may realize that they are familiar with cars, because they have grown up around them. Cars are a part of their culture. You could ask students to consider or write about what it would be like if they traveled to the space traveler's planet. They could discuss how things everyone was familiar with there would be new and confusing, and why they would likely have mistaken beliefs about what they saw. ***S-3***

3) Exploring the importance of cars in our culture

When students have done the television survey and discussed the results, the teacher could use the following questions to make the purpose of the survey more explicit, and have students practice micro-skills: Why does the text have you do the survey? ***S-17*** What question does the survey answer? What answer does it give? Why did the text suggest that survey? What else could we do to answer the question? What assumptions is the text making? ***S-25*** (Television ads reflect our culture. If something is shown in many ads, it is important to people in our culture.) Are the assumptions correct? Why or why not?

To develop insight into culturally shared beliefs, students could then discuss the meanings cars have in our culture in greater detail. You might ask, "Why do cars appear in so many commercials? What ideas are car commercials trying to get across? ***S-1*** What ideas are associated with cars in the commercials? In the ads that had nothing to do with cars, but that had cars, why were cars shown in the ads? What ideas, images, or associations were the cars used to get across? Why? What culturally shared beliefs underlie the ads? (What do ads tell us about what cars mean to people in our culture? What do ads tell us about what cars mean to us?) Which of these beliefs do you share? Not share? Why? Why are cars important? What is important about cars? What are the differences between 'cool' cars and 'uncool' cars?" (Substitute the latest slang.)

To use the material on cars to probe some underlying values of our culture, the following questions could be used: Why are cars important to us? Could we do without cars? How? What would be the advantages and disadvantages of fewer cars or no cars in our culture? How would our culture have to change, in order for us to get along well without cars? ***S-30*** What does this tell us about what values we have? (independence, freedom, mobility, speed, convenience, being on time, doing lots of things, privacy, control, etc.) What else can we say about our culture and our reliance on cars? Imagine someone who didn't like cars. Why might he feel that way? ***S-3*** What values might he have? What values wouldn't he have? The class could also discuss the questions in the teacher's notes. Students may wish to compare their feelings about living in a place that had no cars, as in the original. They might be encouraged to probe the reasons for their different answers.

To further explore ideas in our culture, students could also discuss, or write about, other aspects of our culture influenced by the same values as those underlying values of cars, e.g., clocks and watches, convenience foods and stores, clothing, separate family dwellings, express lines in grocery stores, clubs and social and political groups, etc. ***S-7*** Discussion of culturally shared beliefs could be expanded by having students discuss beliefs shared by most or all of the people they know.

4) Understanding another culture

To apply the idea 'culturally shared belief' to another culture, students could read through the passage on the Aztecs, and discuss the following questions: Why would an Aztec child believe in those gods? ***S-7*** Why are you used to cars? When did you learn what cars are for? When do Aztec children come to believe in their gods? (Students may see that, when everyone around them believes in something, and those beliefs are continually expressed, assumed, or acted upon, children adopt those beliefs as their own, unreflectively.) Why do we say that the Aztec belief in nature gods is a part of their culture, rather than simply calling it a belief of the individual Aztecs?" ***S-10***

5) Alternative discussions

To practice the micro-skill of distinguishing the different uses of 'belief,' students could compare the following passages from the text: ***S-24*** *"People feel some things are more important than others.... From this value may come such beliefs as - land should be owned by the group;" "The Aztecs did not know what caused floods or earthquakes.... The Aztecs were not the only humans who have felt this way about the natural system. Many other humans have believed in gods and goddesses of air, water, sun, and land."* To have students compare the different uses of the term 'belief,' you may ask, "What does the word 'belief' mean in the first passage? ***S-17*** In the second? Give me examples of beliefs in the first sense. The second. How are the two meanings similar? Different? Paraphrase the passages, leaving out the word 'belief.'"

To further develop students' ability to make clear distinctions, the teacher could have them sort the beliefs mentioned in the text into individual vs. culturally shared beliefs.

Any time during the chapter, to have the class explore students' beliefs, you might ask, "What do you think is important? How do you spend your time? Money? Do you group or categorize people? How? What does it mean to put some people in a category? What are you saying about them? In what ways are people alike? Different? Why are they different? (Or discuss any subject of interest to students.) Students could distinguish those answers about which most or all of them agree, from those which vary more between individuals, or which of the beliefs are culturally shared. ***S-10*** "Which of these beliefs are culturally shared? How can we tell?" Or students could Socratically question each other about some of their beliefs, and so learn about relationships among beliefs as well as practice asking and answering questions.

The class could use questions like the following to discuss how and why people change their beliefs: "Have you ever changed a belief or set of beliefs? What did you believe before? Why? What do you believe now? Why?" If students cannot think of any examples, suggest belief in Santa Claus, knowledge they have acquired, or other likely candidates. Have students compare different reasons for changing their beliefs. ***S-19***

Language

(Social Studies - 4th Grade)
For original, see appendix.

Objectives of the Remodelled Plan

The students will:

- clarify the terms, 'communication' and 'language,' and clarify the text's use of these terms
- understand some advantages of verbal over non-verbal communication, supporting conclusions with evidence
- infer some advantages and disadvantages of using symbols
- better understand the role of non-verbal communication
- understand language as a human system and situate particular languages within that system
- develop awareness of and tolerance for diversity in language (dialects, accents, archaic forms), thereby exercising reciprocity
- engage in Socratic discussion to discover and develop their own thinking about language
- understand that communication can sometimes be enhanced by suspending judgment and qualifying claims

ORIGINAL LESSON PLAN

Abstract

This lesson on language occurs in a unit on culture. In the first two paragraphs, students read that the previously blank page was changed by having words printed on it; that "*human culture is printed on the natural system;*" that human culture helps us meet our needs. The student text introduces the term 'communicate.' Students discuss gestures and symbols as forms of communication. The teachers' notes foster the insight that for communication to take place, both sender and receiver must understand the gestures and symbols. Advantages of maps and universal symbols are suggested. Human and animal communication are compared. The text mentions the use of 'human language' to communicate facts, information, preferences, values, feelings, ideas, and beliefs (e.g., "I think it's wrong to litter.") It also stresses language's ability to speak of the past and the future, as well as the ability of the written word to preserve human experience. Students name feelings of pictured people (happiness, fear, anger, etc.) discuss things they feel strongly about, and identify the needs that specific examples of communication help meet.

from *Planet Earth,* James M. Oswald. © 1976 by Houghton Mifflin. pp. T80-87. Used with permission.

Critique

Focussing the goal

We chose this lesson because it deals with an important topic which seems to present some organizational and conceptual problems for the textbook writers. The lesson contains some important material and some good, creative suggestions for student activities. However, it suffers from lack of logical cohesion, fragmentation, and confusion in terminology. The fact/ opinion distinction underlies this lesson. One of the main problems is that the lesson tries to combine and link up very tenuously related goals. The teacher's notes identify some of the goals as, "*Conceptualize **language**, by giving examples of the sounds, symbols, and gestures people use to communicate.... Demonstrate tolerance of diversity by investigating food preferences and pointing out that people's likes and dislikes vary.*" If the authors felt the need to include a discussion on tolerance, why not use tolerance for other languages, dialects, accents, etc. as the focus? Another stated goal is, "*Demonstrate self-awareness by expressing her or his feelings in response to certain situations or objects.*" Here again, the focus is deflected from language to feelings — quite another topic. The last listed goal, "*Cite evidence to support the hypothesis that humans use language to meet their needs.*" seems like an attempt to unite the very fragmented preceding goals, but in fact only baffles the reader and trivializes the subject of language.

It is important for the critical thinker to be able to recognize systems of thinking within which she operates mentally, and to step back and examine how those systems operate, how they compare to similar systems, and what their role is in influencing thought and behavior. This lesson points in the right direction by inviting students to examine language as such a system, identifying its important features, comparing it to other systems of communication, etc. It shows weakness by not clearly delineating and distinguishing aspects of the system (conceptual problems) and by digressing from considering language *as a system* to discussing some of the *subjects* of language (food preferences, feelings). In the remodel, we hope to show how, by clarifying key concepts, eliminating extraneous material, and extending discussion through Socratic questioning, the lesson can be made to foster some of the goals of critical thinking.

Clarifying terms, correcting misconceptions, maintaining focus

Given the illogical mix of goals, it is not surprising that the first two paragraphs of the student text are confusing and directionless. At this stage it is enough to simply say that language is an important aspect of culture, and then directly address the topic of language itself. A second problem arises in that, although the text says that "language is human communication," it keeps using the redundancy 'human language,' (by its definition, "human human communication.') We suggest using the distinction between verbal and non-verbal communication (mentioned in the last section of notes to the teacher), to help organize the lesson content in clear categories. Gesture, expression and body language could then be seen as aspects of non-verbal communication, written and spoken language as aspects of verbal communication (language proper). Symbols could be discussed as a bridge between verbal and non-verbal communication. We advise dropping the parts of the lesson that wrest the focus away from language and center instead on feelings, preferences and needs. Instead, we suggest that you emphasize the range of possibilities of expression that language offers, thus keeping the attention on language. Although it is alluded to, the precision and efficiency of language in expressing oneself are not sufficiently clarified and stressed. The only differences between human and animal communication mentioned in the text are, 1)people have more choice about how they can communicate something, 2) people, unlike animals, can also talk about the past and future.

The lesson veers off course in another instance (p. 47) by asking students, "*Where do you get information about movies that are playing? About the weather? About holidays? etc.*" This is now a lesson on reference skills rather than language.

The lesson fosters a common misconception about the relationship of language and symbol on p. 45. The text states, *"The symbols you probably know best are numbers and letters. Letters are put together to make words. And words are grouped together to make sentences. The sounds, gestures, and symbols that people use make up language."* This scenario implies that language is constructed from letters and words, when, in fact, oral language preceded the written symbols by millennia. The primacy of oral expression is not only ignored, but implicitly denied.

Extending the lesson

The text wisely emphasizes that both sender and receiver must have a common system of communication to achieve mutual understanding. The student text then mentions that international symbols (such as those common at airports) are useful when people don't speak the same language. This is fine as far as it goes, but the possibility of learning other languages is never mentioned. There is excellent potential here to discuss different languages, how they are constructed, how they are not word for word structural equivalents of ours, how they reflect and enhance a particular culture, how they influence each other, etc. It would be an excellent opportunity to help students identify ethnocentric notions they hold about language, and to move beyond them. The question of tolerance would fit nicely here. It would also be an opportune moment to discuss regional or ethnic dialects; how they arose, how they meet the needs of their speakers, how they enrich the 'standard' dialect, etc. A sense of various points of view and perspectives could be incorporated into this discussion, including a consideration of language prejudice and conflict.

On p. T85, students are directed to identify feelings and possible reasons for those feelings by looking at some pictures. This is a good way to illustrate how facial expression communicates, but there is no emphasis on how interpretation of such communication is very general. One cannot learn much from looking at expressions in pictures. This activity could be a good introduction to discussing the advantages of words to express more precisely and completely what we are thinking, feeling, experiencing.

An advantage of the written language that is hinted at but not made explicit, is in the section on Erasmus. All that is conveyed by the text is that written language extends forward into time. The implications of that very important fact are not explored at all. The notes to the teacher on p. T87 likewise introduce an important concept only to let it drop immediately. *"Language is not only a part of culture; in some ways it shapes culture."* How does it shape culture? Students will not understand this unless it is discussed and made clear and concrete.

Strategies Used to Remodel

S-19	engaging in Socratic discussion
S-10	clarifying ideas
S-17	clarifying or critiquing text
S-27	making plausible inferences
S-5	suspending judgment
S-31	refining generalizations
S-28	supplying evidence for a conclusion
S-18	making interdisciplinary connections
S-7	transferring ideas to new contexts
S-3	exercising fairmindedness/reciprocity

REMODELLED LESSON PLAN

The original lesson has three principal parts: 1) Introduction of key vocabulary and concepts, 2) Identification of some characteristics and advantages of human communication (language) and 3) Consideration of some of the subjects language can talk about (food preferences, feelings) and how these capabilities help us meet our needs. Our remodel begins with an optional lead-in, a Socratic discussion of 'language.' Then incorporates it into the first two parts of the original, drops the third, and finally provides a section suggesting several alternatives for broadening and extending the lesson.

1) Optional Socratic discussion/lead-in ***S-19***

One way to begin the study of language would be to initiate a Socratic discussion of the topic with questions such as: How did I learn my language? What is language like? Do animals have language? How is human language different from animal communication? What is language for? What makes language work? How do I know when it's working or not working? Why doesn't everyone speak the same language? Where did language come from? Can I think without language?" These and questions like them can be extended as interest warrants. The primary purpose of this type of introduction is to help students to see language as a whole, a system, and their own language as one of many manifestations of that system.

2) Introduction of key vocabulary and concepts

One possibility for beginning this phase of the lesson is to discuss the meaning of the term 'communication.' ***S-10*** (p. 44, paragraph 3, *"the way we send and get messages."*) You might use the suggested activity on page T81, paragraphs 1 and 2, to emphasize the importance of comprehension in communication. You could help students to clarify further by asking, "Can animals communicate? How do they communicate? (If students don't mention them, share the examples of honey bees and dolphins on p. T87, or other examples you can provide.) In what ways do human beings communicate? About what do humans communicate? How does human communication differ from animal communication?" At this point, you could introduce the term 'language' and distinguish it from 'communication' by saying that it refers to spoken and written words. It is what we refer to as 'verbal communication.' The other ways of communicating are called 'non-verbal.' To have students clarify the way in which the text uses the word 'language,' have them clarify in what way 'language' is used each time it occurs throughout the lesson. ***S-17***

It would be appropriate to incorporate the activities suggested on p. T82, paragraph 4, here. (Identify the symbols on student text p. 45, name some other symbols they know, make up original symbols, discuss and improve on them, and note their limitations.) If you choose not to do this, you might ask, "In what circumstances would symbols be especially useful? What are some limitations symbols have?" Discuss the section on symbols by emphasizing that they are based on words and concepts. Have students read p. 45 and ask, "In our language, what do letters represent? What do words represent? What about sentences? Which do you suppose came first, symbols or spoken language? Explain your reasons." ***S-27*** Emphasize that the symbols all represent the spoken language, which preceded them.

3) Characteristics and advantages of human communication

At this point, you might talk about some of the things language can do that non-verbal communication can't do as well. You could ask students what they think some of those advantages might be. As they read pp. 46-49 they could list the advantages on the board. (We suggest dropping all the information on feelings, food preferences, etc. on pp. T84-5.) An important insight that you might want to clarify is that the power to preserve ideas, discoveries, etc. helps subsequent generations to build on a broad knowledge base without having to 'start over.' Another is emphasizing the range of possibilities of expression (nuance, precision) that language allows.

One way to do this might be to have students look at the pictures on pp. 48 and 49 and make up a sentence or two describing what they think the people are communicating. Have them read their interpretations to the class. You could then ask questions such as, "Did we all agree what the people were communicating? What were some of the differences in our interpretations? Why were there differences? How could we know which version was right? ***S-5*** If we can't ask the people exactly what they meant, how sure can we be of our interpretation?" The discussion should lead to the insight that although we can identify general feelings from gestures and facial expressions, we can't be sure of the details of the experience or the depth of the feeling being expressed. If the people in the pictures were able to speak to us, they could clarify what they meant much more precisely.

The range of expression language offers could be explored by having students write something like, "I love to swim." and "I hate to swim." on opposite sides of the blackboard, and then list a range of expressions in between. (I like to swim sometimes. I like to swim when the weather's warm. I'm afraid to swim in deep water. I don't like to swim often.) ***S-31*** The purpose here is to illustrate the power of language to express nuance and a broad range of feeling. ***S-28***

Another way to extend this discussion and to cultivate a global perspective about language (seeing it as a whole, a system) would be to consider with your students the fact that language changes. There are many ways to approach this idea in discussion. One might be to cite a brief passage from Shakespeare or the King James Bible (with some 'thees' and 'thous'.) Or, have students list slang terms from old television shows, e.g., "Oh, golly." You could then ask, "Is this standard English? What's different about it? When was it written/recorded? Why don't we speak/write this way now? Will our language change in 100 years? What changes in our language are taking place now? Why does language change? Are changes good, bad or neither?" You could guide this discussion in such a way as to let your students discover something about historical perspective in general, thus moving beyond a single subject to broader, cross-disciplinary insights. ***S-18***

4) Alternatives for broadening and extending the lesson

If interest and background warrant, the teacher could conclude the lesson with a discussion of attitudes toward language. You might begin by asking students to name some languages other than English. If there are any children in the class who speak other languages they will be a good resource as the discussion proceeds. Note that other languages are not word for word equivalents of English, but have their own structure. (If you are familiar with another language you could illustrate, say, differences in word order, by contrasting simple equivalents in English and the other language.) Note also that they meet the needs of their people just as our language meets ours. You might ask, "What might be important to an Eskimo that is not as important to us? What in our culture might not be important for an Eskimo to know? How do you think this would show up in languages? (Eskimos have many more words for 'snow' than we, because it is such an important part of their environment. We, on the other hand, have developed a computer vocabulary that reflects our interest in computers. Another example of culture influencing language is in Peru. Peruvians have many words for 'potato,' reflecting the importance of potatoes as a food staple in that culture.) Another question might be, "How many students know someone who has learned a foreign language? How can a person learn another language? How long does it take? Is it hard? What would be some of the frustrations? Why would it be desirable to learn another language? What would be some problems of living in another country and not knowing the language?"

If you want to explore another aspect of language which invites a discussion of diversity and tolerance, you might consider the dialects that exist within a language. English is a good example because of its dialects in North America, Australia, New Zealand, Scotland, Malta, Jamaica, South Africa. "Why are there so many forms of a single language? Is one form better than another? Why or why not? What do we mean by 'standard English?' Does 'standard' mean better?" ***S-5***

You might extend this discussion in several ways, encouraging students to see and develop tolerance for perspectives other than their own. Consider asking, "Have you ever heard someone speak English with a Southern/Northern accent? Was it hard or easy to understand them? How did they learn their way of pronunciation? Would they think you had an accent? ***S-3*** Why are there differences in pronunciation? Is one better than the others?"

All the various strategies explained in the handbook are couched in terms of behaviors. The principles express and describe a variety of behaviors of the 'ideal' critical thinker; they become applications to lessons when teachers canvass their lesson plans to find appropriate places where those behaviors can be fostered.

Spanish California

(Social Studies - 4th Grade)

Objectives of the Remodelled Plan

The students will:

- clarify the concepts 'to own land,' and 'to claim land'
- exercise reciprocity by examining the Spanish colonial period in California from multiple perspectives
- infer what the text does not make explicit
- recognize the role of ethnocentricity in Spanish treatment of California Indians
- recognize bias in the text
- draw their own conclusions after pursuing root issues about the Spanish period in California
- refine generalizations about the period by probing assumptions and implications, clarifying issues, and making use of critical vocabulary
- evaluate actions and policies of the people of the period
- Socratically examine the concept of 'ethnocentrism'

ORIGINAL LESSON PLAN

Abstract

This set of lessons is from a unit, "Europeans Come to California." We have selected two short passages from the chapter, "Europeans Explore California," and several other chapters from the unit.

The first passages discuss European claims to California. "Spanish Settlement in California" briefly describes the three forms of Spanish settlements: presidios, missions and pueblos. It then focuses on the founding of the missions. "Life in Spanish California" focuses on life in the missions. It describes their slow start; gives a brief, "A Day at the Mission;" describes the physical layout of a typical mission; describes some of the hardships of Indian life at the missions; gives fuller discussions of presidios and pueblos, including who lived in each, and what the residents did.

"Mexican California" explains how the missions were ended after the Mexican Revolution, how the lives of mission Indians changed, and describes life on Ranchos.

from *Our State: California*, Jo Anne Buggey.
©1983, Follett. Allyn & Bacon, Inc. pp. 177-8, 181-2, 184-193, TE 33-5.

Critique

The problem of ethnocentricity

We chose these lessons because their subject matter, the Spanish period in California, shows the initial meeting of two vastly different kinds of cultures, a basic idea in history. If students examine such periods of great change in depth, they will begin to develop the critical insight that actions and belief systems can be evaluated from a number of points of view, that what is good in one framework is not necessarily so in another. They will see that when one culture subsumes another both groups lose as well as gain. They will also have the opportunity to explore moral dimensions of historical events and decisions (an area many texts tend to avoid). Students should begin to understand that texts themselves assume a particular point of view, and that authors write from within a particular perspective. The critical thinker should learn to identify and understand those perspectives.

It is crucial to avoid looking at such periods ethnocentrically by failing to consider actions from the perspectives of each culture. One of the problems that crops up in social studies texts is inadvertent ethnocentricity. The original lesson falls prey to it in that it is biased toward the Spanish. The ethnocentricity takes many forms, including choice of language, incomplete presentation of the Indian perspective, and an overly sympathetic portrayal of Spanish motives. Although many facts presented justify negative evaluation of the Spanish, such conclusions are avoided. Details and discussion are scattered. No basic ideas or unified concepts are stressed.

The text often chooses language which fosters the Spanish point of view. For instance, it uses 'religion' and 'Christianity' interchangeably. The claim that the priests wanted to 'teach religion' is misleading; they taught *their* religion, not religion in general. Likewise, the text uses the expression, 'life in California' rather than 'life in Spanish-controlled areas of California,' again presupposing the Spanish view.

Dealing with negative implications

Although the text does not completely white-wash Spanish treatment of the Indians, it steers students away from evaluating certain aspects of Spaniards' behavior. The text fails to use negative terms suggested by the details described. Given such facts as, "Indians were locked up at night. When they tried to leave the missions, soldiers brought them back. They did the hard physical labor. They were ill-fed and ill-housed," one can conclude that they were badly treated slaves. By stopping short of naming this condition, the text discourages students from considering the implications of the situation, or evaluating Spanish behavior. These facts sit juxtaposed with the belief that the Spanish wanted to help the Indians. A coherent point of view requires synthesis of all available facts. (A related problem here is the questionable generalization, since in different individuals, motives varied.)

Furthermore, when describing the harsh conditions in which the Indians lived, the text fails to put responsibility on the priests. They controlled housing, food, and work hours. They failed to provide for the Mission Indians. The facts about Mission life are described without reference to the priests. Also, by putting such claims as, "*The number of Indians in California got smaller and smaller*" in the passive voice, the fact seems simply to have 'happened somehow,' rather than having been caused directly or indirectly by the Spanish priests and soldiers.

Words vs. actions

The text repeatedly emphasizes the priests' stated reasons for founding the missions. Students read that Father Serra and others wanted to teach Christianity and the Spanish (i.e., better) way of life. Several times students are asked why the missions were started, and the text supplies those reasons. Students are discouraged from considering whether there may have been other reasons as well, such as free labor and setting the stage for Spanish rule, which would coincide better with Spanish treatment of the Indians. This repetition, over-simplification, and ethnocentricity, foster a one-sided view of the period. The text also oversimplifies Indian problems after the breakup of the missions. Though the text gives several reasons - lack of money to work the land, loss of land through force, loss of knowledge of how to live off the land - the text answer, when students are asked why Indians had problems, is, 'lack of money,' de-emphasizing negative effects of Spanish control.

European 'superiority'

The text misses the opportunity to have students examine a basic assumption made by the Spanish, i.e., the superiority of the European/Spanish/Christian way of life. Such cultural bias has often played a significant role in history. Nor does the text have students question the Europeans' belief that the 'New World' was the rightful property of the first European country to claim and use it. It never recognizes the cultural specificity of such concepts as 'claim,' 'deed,' etc. Neither does it have students consider these ideas from the Indians' perspective. As a result, it never questions the Europeans' right to claim ownership of the land, or subjugate its people.

The text also fails to have students explore in sufficient depth the differences between the Indian cultures, the lives of Mission Indians, and Spanish ways. Extended discussion, use of imagination, pursuit of implications and reciprocity are crucial to an understanding of the changes forced on many Indians. Students have no chance to develop their own consistent perspectives on the period.

Critique of text questions and activities

Rather than pursuing basic ideas in depth, text questions are scattered, and time is wasted on recall of such trivial facts as the following: *"Why did the rancheros brand their cattle? Why was it hard for Portolá to find Monterey Bay? The first Spanish explorer to find San Francisco Bay was (a) Serra (b) Cortes (c) Portolá. Scurvy is caused by.... The road that ran between the missions was called.... Drake claimed California for ...."* The end of the unit 'thinking skill' activity asks students to compare two pictures showing life in San Diego, California, and life in Boston, Massachusetts. They are to note differences and similarities. The answers focus on dress, road conditions and relative technological complexity.

In the chapter, "Europeans Explore California," students are directed to keep a list of the important events in the chapter and arrange them in chronological order. The teacher's answer key lists the arrival, discoveries and claims of Cabrillo, Drake and Vizcaino. Students are not asked to distinguish important from unimportant information. The information is not related to key ideas such as, "*Why did the Spanish want to establish a settlement in Alta California*," and, "*Why do you think the Spanish were not interested in settling California*" (though the text does ask these questions).

Strategies Used to Remodel

S-10	clarifying ideas
S-23	using critical vocabulary
S-3	exercising reciprocity/fairmindedness
S-8	developing one's perspective
S-27	making plausible inferences
S-17	clarifying or critiquing text
S-9	clarifying issues and claims
S-5	suspending judgment
S-16	evaluating actions and policies
S-25	examining assumptions
S-30	exploring implications and consequences

S-2	developing insight into ego/sociocentricity
S-13	raising and pursuing root questions
S-29	recognizing contradictions
S-1	exercising independent thought
S-31	refining generalizations
S-19	engaging in Socratic discussion
S-7	transferring ideas to new contexts

REMODELLED LESSON PLAN

Our remodel has six parts. The first three, 1) Review and introduction, 2) The meeting of two cultures, and 3) Life in the missions, follow the original lesson. We have added a dialogical examination of the material from the first three sections, in 4) Evaluation of the period. We again follow the original lesson in section 5) Results. We added section 6) Supplementary discussions.

1) Review and introduction

At the beginning of this unit, so students will be better able to compare the cultures, you might have students review material on the Indians of South Coastal California, asking them to mention everything they remember, listing their ideas on the board, and having them skim that section of the text. Since the following ideas will be important in this unit, you might want to emphasize religious beliefs, use of the land, technology, and social organization. The teacher could keep lists of features of both cultures, on a large sheet of paper or the board. Students could add to the list throughout the lesson.

Have the students read "Europeans Explore California." Here are some suggestions for questions you might ask: How did Cabrillo 'claim' the land? ***S-10*** Drake? Why did they do this? What did 'owning land' and 'rights to land' mean to them? What assumptions did they make? ***S-23*** (the land was unowned, their claiming it implied that other Europeans should accept their claim). What did the Indians think about owning land? ***S-3*** Whose land was it? ***S-8*** (Students may discuss at length.)

2) The meeting of two cultures

Then, have students read, "The Spanish Settle in California." You could draw their attention to the passage on pp. 181-2, "*When Portolá returned to San Diego, he found the little colony near starvation....The Spanish did not know how to live that way.*", and ask, "What did the Indians know that the Spanish didn't? What does this tell us about the Indian culture? The Spanish culture?" ***S-27***

You could also have students compare the following sentences: ***S-17*** *A mission is a settlement built around a church where local people are taught about religion.* (p. 181) *He went to Mexico to teach the Indians about Christianity.* (p. 182) You could ask, "What were the Indians taught? Is 'religion' the same as 'Christianity'? Did the Indians have a religion? Could the first sentence be made more accurate? How? Why do you suppose the text was written this way?" The class could also discuss the phrase 'better life' (p. 182). You might ask, "What does it mean? ***S-9*** Why did Father Serra think his way of life was better? Would everyone agree?" Then you might want to draw student attention to the sentence, *"During the Spanish period, life in California centered around missions, Presidios, and Pueblos."* (p. 184) You could ask, "What does the sentence mean? ***S-17*** Does 'life in California' refer to everybody living in California?" (It leaves out Indians who opposed, or were uninvolved with Spanish settlements.) Students could then be asked to rewrite the sentence to more accurately reflect the situation.

Students could also discuss the sentence, *"Presidios were built to protect the settlers."* (p. 184) "To protect the settlers from whom? What can we infer from this?" (At least some Indians fought Spanish settlement.) ***S-27***

3) Life in the missions

In the following chapter, "Life in Spanish California," when students have read "Life at Missions." The following questions could be used: Why did the Indians come to the missions? Does the text answer this question? ***S-5*** When the text says, *"The priests needed the Indians to help them,"* what does it mean? What does this section tell us about the differences between the two cultures? If keeping lists about the two cultures, add these points.

When students have read "A Day at the Mission," you could ask, "What does the sentence, *'When Father José unlocked the door, Older Sister hurried outside.'* imply? ***S-27*** Why was the door locked? Do you think that was right? ***S-16*** Do you think that locking the Indians up at night was consistent with the reasons the text gives for the creation of the missions? Why or why not? If you think it was consistent, what can you say the priests were assuming? ***S-25*** (If someone doesn't want your help, you may have to force them.) What does this section tell us about the differences between the two cultures?" If keeping lists, students could add these points.

If students read, "What a Mission Looked Like," they could compare the dwellings of the two cultures, and the and what the differences imply for each culture. ***S-30*** (Labor requirements, permanence, complexity of settlement, materials required, etc.)

When students have read, "Indians and the Missions," the class could discuss questions like the following: Why weren't Indians allowed to leave? Who was responsible for the Indians' conditions? Did the priests and soldiers treat the Indians fairly? ***S-16*** What would you call their condition? What did the priests do for the Indians? What did the Indians do for the priests? Why did the number of Indians get smaller?

4) Evaluation of the period

To integrate the preceding material, we suggest four discussion topics. First, to highlight the dialogical nature of the history of this period, we suggest that students refer to the lists of the characteristics of both cultures on the blackboard. Students could then discuss the advantages and disadvantages of each. You could say, "The Spanish thought their way of life was better; the Indians who resisted the Spanish thought *their* way of life was better. Nearly everyone has this attitude about his own culture. ***S-2*** It is a common assumption. (If students don't know it, you might introduce the term 'ethnocentric.') What does it mean to say that one way of life is better than another? How could we evaluate two cultures? (Discuss at length, if interest warrants.)

Next, the class could discuss the reasons behind the behavior of the Spanish and the Indians. ***S-13*** "What reasons did Father Serra give for establishing missions? What other reasons were given in the text? Could there have been other reasons as well? Did all of the priests have the same reasons? Were the soldiers' reasons the same as the priests'? How could we tell what their reasons were? What did the priests want from the Indians? Is what they wanted the same as what they said they wanted, or is there a contradiction?" ***S-29*** At this point, the class could discuss reasons some Indians resisted Spanish settlement, and others were attracted to the missions and pueblos.

Now the class should be ready to evaluate the text. ***S-17*** You might ask, "What is the point of view of the text? Is it fair to both sides? Does the author's use of language reveal a bias? Give examples. Are there ethnocentric assumptions in the text? ***S-23*** Which? Why do you say they are ethnocentric? Are there any groups the text ignores? Are any facts omitted? Are there ideas or inferences which are not made explicit? What difference does it make if something is left out? What, if anything, can we conclude about the perspective of the author?"

Finally, students could evaluate the period as a whole. Here is a list of possible questions: ***S-8*** What do you think of Spanish policy in California? Of what aspects do you approve? Disapprove? Why? Did the priests help the Indians? What, if anything, should the Spanish have done differently? Why? Did the Spanish have the right to do what they did? Why or why not? What do you think of the Indians' behavior toward the Spanish? Did the Indians help the Spanish? Why did some Indians join the missions? Should they have joined? Why or why not? Why did others fight the Spanish? Should they have fought? Why or why not? With which Indians do you agree - those who joined the Spanish, those who fought them, or those who did neither? Why? What, if anything, should the Indians have done differently? What did the Indians learn from the Spanish? How did it affect them? Was the effect good, bad, neutral, or mixed? Why? What other things, if any, should they have learned? Why didn't they? What did the Spanish learn from the Indians? What could they have learned? Why didn't they? Should they have tried to learn more? Why or why not? Is it important for people to preserve their culture? Why or why not? Is there anything from the Indians' cultures you wish had been preserved, or incorporated into our culture? What difference does it make to the dominant culture if another is destroyed? When a culture disappears, are we made poorer in any way? ***S-13***

5) Results

Before assigning the chapter, "Mexican California," the teacher could assign interested students an altered version of, "Use this Reading Skill." (p. 186) You might have the students distinguish what they consider to be the more important ideas from the less important ideas and write an alternative outline for the chapter. ***S-1*** When the rest of the class has read and discussed the chapter, the class can compare the students' outlines with the text's chapter headings.

When students have read the section, "Changes for the Indians," you might ask, "Which Indians does the text refer to? (Mission Indians) Was it right for the Mexican Government to take the mission land? ***S-16*** Why or why not? What happened to the mission Indians when they were freed from mission life? Why didn't they return to their old ways?" If necessary, you might have a student read aloud the passage from p. 182, *"The California Indians lived on what they could find. The Spanish did not know how to live that way."* Point out that if you are not raised to live off the land you lack the knowledge and skills necessary to survive.

Have students read the rest of the chapter. You might ask what people are *not* discussed in the section, "Rise of the Ranchos?" (Indians who hadn't lived at the missions. ***S-31*** Also, only some mission Indians found work on the ranchos. The chapter does not tell us what happened to the rest.)

6) Supplementary discussions

Finally, you could conclude the Unit with the following questions: Now that you have read the results of Spanish settlement of California, in what ways, if any, did the priests help the Indians? Were there things the priests should have done differently? The Indians? Students could discuss at length. ***S-16***

If you would like to explore the general question of ethnocentricity in a Socratic discussion with your class, you might get started with questions such as the following: ***S-19*** What identity do we as a class share? What nation, and groups do we all belong to? What are some of the groups we don't belong to? When Americans have a disagreement with another country, do we think we're right? Does the other side think they're right? (Extend these questions to other groups.) Are we always right? Are others always wrong? Is it always a question of right and wrong? Is one group usually completely right or wrong? Why do people like to think they're right? How do people feel when another group assumes they are better? How can we overcome this tendency?

This unit will probably constitute the first example of the meeting of two cultures studied by your students. If not, consider having them compare this situation, the reactions of the people involved, and the results, to the other examples. If so, when other examples are studied in the future, it would be useful to have students make such comparisons. ***S-7*** In any case, it is important to encourage students to integrate insights gained in this unit to subsequent analogous situations.

The reader should keep in mind the connection between the principles and applications, on the one hand, and the character traits of a fairminded critical thinker, on the other. Our aim, once again, is not a set of disjointed skills, but an integrated, committed, thinking person.

Sojourner Truth

(Social Studies - 5th Grade)

Objectives of the Remodelled Plan

The students will:

- understand Sojourner Truth's message in "Ain't I a Woman" by exploring thoughts underlying feelings, clarifying issues and claims, making inferences, and integrating critical vocabulary
- appreciate her personal qualities
- evaluate arguments in "Ain't I a Woman," supplying evidence for conclusions
- identify society's double standards, inconsistency, racism, and sexism as revealed in "Ain't I a Woman"
- Socratically explore inconsistencies and double standards in personal thought and behavior
- recognize the speech's dramatic and expressive qualities

ORIGINAL LESSON PLAN

Student text

Another early worker for human rights was a former slave, Sojourner Truth. In 1851 she made a stirring speech to the women's rights convention in Akron, Ohio. As men tried to shout her down, she went to the platform and said,

> "That man over there says that women need to be helped into carriages and lifted over ditches, and to have the best place wherever. Nobody ever helps me into carriages or over mud puddles, or gives me any best place. And ain't I woman? Look at me! I have ploughed and planted and gathered into barns and no man could head [do better than] me. And ain't I a woman? I could work as much and eat as much as a man - when I could get it - and bear the lash [whip] as well.
>
> And ain't I a woman? I have borne thirteen children and seen most all sold off to slavery, and when I cried out with my mother's grief, none but Jesus heard me. And ain't I a woman?..."

Teacher's text

Understanding Primary Sources. Have pupils answer the following questions based on Sojourner Truth's speech to the Akron convention on p. 143.

a. *About what two groups of people was Sojourner Truth speaking?* (Blacks and women)

b. *What work did she do that men did?* (Plowed, planted, and gathered crops)

c. *What could she do equal to a man?* (Work, eat, and suffer punishment)

d. *What special sadness did Sojourner Truth have to bear because she was a black woman?* (Her children were sold from her.)

e. *Why did she keep repeating the phrase, "And ain't I a woman?"* (Answers will vary. Pupils may say to dramatize her speech, to emphasize women's abilities, to plead for women's rights.)

from *The United States and Its Neighbors,* Timothy M. Helmus, Val E. Arnsdorf, Edgar A Toppin, and Norman J. G. Pounds. ©1984 by Silver Burdett Co. pp. .142-143. Used with Permission

Critique

We chose this passage in part because it is representative of vignettes about famous people which are included within a particular lesson. This one, shorter than many, has little biographical information, though the text suggests Sojourner Truth as a subject for a biographical report. Too often texts gloss over stories of injustice and inhumanity; this piece is a laudable exception. Even this short segment presents opportunities for understanding Sojourner Truth as a remarkable individual with a powerful message and an effective way of dramatizing it. The text, however, misses all opportunities by choosing to dissect the excerpt principally in terms of its factual data. Most of the questions ask students to pull information out of the speech and repeat it. In emphasizing questions such as *"What work did she do that men did?"* (questions **a-d**), the text entirely misses the important message and social criticism of the speech. Questions such as this simply function to disassemble the speech into its parts and put them back together in chronological order. If supplementary biographical information were provided, the speech could more easily be considered on its own terms for the human qualities and important messages it expresses. In order to understand these things, students must do more than repeat information; they must infer meaning.

The text also fails to recognize the speech's dramatic and literary power, and its portrayal of Sojourner Truth as a passionate, courageous, multi-dimensional person. The text lists the recall questions under the heading, "Understanding Primary Sources." This is a useful skill, when *understanding* is achieved. Here, however, students are simply asked to *decode* a primary source. Oddly enough, the only question out of five (question **e**) that might lead to a significant understanding of one aspect of the speech, ignores its passion and energy. In the teacher's notes about the answer, no allusion is made to the anguish Sojourner Truth felt at the injustices directed toward herself and all Black women of the time, or the inconsistency between belief in women's delicacy and treatment of Black women. One of the important attributes of a critical thinker is the willingness to look at inconsistencies in her own thought, and discrepancies between her words and actions. Our thinking is often characterized by quite unconscious categories to which we apply different standards. That is, we treat our friends one way and family members another way, and we treat members of other racial, religious, ethnic, or social groups differently from members of our own. The critical thinker searches for these categories and inconsistencies in her own thinking and behavior, evaluates them, and adjusts accordingly. The speech, "Ain't I a Woman," provides an excellent model which reveals these sorts of thinking patterns, decries the inequities they create, and invites self-examination in the name of justice.

Strategies Used to Remodel

S-4	exploring thoughts underlying feelings
S-23	using critical vocabulary
S-16	evaluating actions and policies
S-19	engaging in Socratic discussion
S-9	clarifying issues and claims

S-27	making plausible inferences
S-14	evaluating arguments
S-28	supplying evidence for a conclusion
S-18	making interdisciplinary connections
S-13	raising and pursuing root questions
S-7	transferring ideas to new contexts
S-31	refining generalizations

REMODELLED LESSON PLAN

For our remodel, we have used the speech, "Ain't I a Woman," and have built a lesson around it emphasizing its message, what it tells us about Sojourner Truth as a person, its effectiveness as a dramatic piece, and one application students might make of it in their own lives. We have basically set aside the questions the textbook suggests.

1) The messages of "Ain't I a Woman"

In order to provide a context for understanding the excerpt from "Ain't I a Woman," the teacher could begin by assigning Sojourner Truth as a subject for a biographical report. After the presentation to the class, have students read the introduction and speech. You could then ask students what feelings they experienced as they read the speech. For example, "What did you think? What did you feel? Why? ***S-4*** What do you think she was feeling as she spoke? Why?"

You might guide this discussion to help students understand the theme of inconsistency or double standards in treatment of people based on their race. Here are some sample questions: What words mean 'saying one thing and doing something different?' (hypocrisy, inconsistency, double standard) ***S-23*** What inconsistency or double standard was Sojourner Truth pointing out in her speech? (The treatment of white women vs. black women) What word do we use to describe when people are treated inconsistently because of the color of their skin? (Racism) Can you think of any other examples of this double standard of treatment based on race? What's wrong with double standards or inconsistency in the treatment of people? ***S-16*** Have you ever experienced inconsistency in the way you were treated? How did you feel? Are we ever inconsistent in our treatment of others? How? How do people feel when they are treated this way? Do we always know when we're applying double standards? What might help us to know? What might the people she was talking about have said in answer to her? How was the double standard Sojourner Truth talked about hidden or disguised in words? What did the word 'woman' mean to the men she was talking to? What did it mean to her? ***S-19***

When students seem ready, you could develop the speech's theme of womens' role with questions such as: What image of women was she criticizing? ***S-9*** Do you think women liked being thought of as helpless? Why or why not? Why might being thought of as helpless frustrate a person? ***S-4*** What does Sojourner Truth say about society's view of women? ***S-27*** (The romantic ideal of women was false.) What proof does she offer that these ideas are false? Was she right? ***S-14*** What did she want to change?

2) Sojourner Truth as a person

The class could also discuss the following questions: What kind of woman was Sojourner Truth? ***S-27*** How do you know? How strongly did she believe in what she was saying? How do you know? ***S-28*** Do you understand how she felt about these issues? Paraphrase her feelings. Paraphrase her message. Do you think the way she expressed herself helped her message or hindered it? Why?

3) "Ain't I a woman" as a dramatic, expressive piece *S-18*

A speech such as this provides an excellent opportunity for interdisciplinary work. The teacher could initiate a discussion of why the speech was (or wasn't) effective, from a poetic or dramatic point of view. Ask, "Was this a good speech? Why or why not? ***S-28*** What do you think about the use of the word 'ain't'? Does it help her get her point across, or distract? Would the speech be improved by substituting 'Am I not?' How do her examples help her get her point across? Why doesn't she simply say that she doesn't get a cold if she sits in a draft, and doesn't care if her feet get wet? What effect would that have had? What effect did her words have?"

4) Application to the students' lives

If interest warrants, the teacher could direct the discussion to a related area, gender differences as experienced and understood by the students themselves. ***S-7*** You could use the following questions: Are boys and girls treated differently? Should they be? When? Why or why not? Are there things that boys can do that girls can't, or vice versa? Are these things true for all boys and girls? ***S-31*** Do they justify treating boys and girls differently? Under what circumstances should boys and girls be treated differently? How do people feel when they think they've been treated unfairly? What should they do about it? Or students could first consider what they would like to become when older, imagine they are the opposite gender and consider the same issue. Have students compare their answers, and discuss at length.

Critical thinking requires sensitivity to the distinction between those facts that are relevant to an issue and those which are not. Critical thinkers focus their attention on relevant facts and do not let irrelevant considerations affect their conclusions.

Columbus

(Social Studies - 5th Grade)

Objectives of the Remodelled Plan

The students will:

- practice using critical vocabulary, 'assumption,' 'inference,' 'contradiction'
- assess Columbus's reasoning by examining assumptions and implications, recognizing contradictions, and evaluating arguments
- clarify the words 'guess' and 'infer'
- engage in dialogical thinking, by exploring opposing arguments
- practice suspending judgment where evidence is inconclusive

ORIGINAL LESSON PLAN

Abstract

This is part of a lesson which details Columbus's preparations for his voyage to the 'New World.' It includes his theories about geography and his purpose for the voyage. The lesson outlines the mistakes in Columbus's thinking as well as including objections from scholars of the time. To illustrate these errors, it quotes notes he made in the margins of a geography book. The bulk of the text describes Columbus's attempts to get financing from the rulers of Portugal, Spain, England and France, as well as specific preparations for the trip. It describes his ships and the sailing technology of the period. A segment from the end of the lesson speaks of the later voyages of Columbus, including setting up a base for Spanish expansion, and problems with the new colony. The text mentions that Columbus never accepted the idea that he had not reached the Indies.

from *Our United States,* Jo Anne Buggey. ©1983
Follett. Allen & Bacon. pp. 92-94, 98.

Critique

We selected this lesson because it provides an opportunity for students to develop some of the micro-skills of critical thinking, particularly making assumptions, inferences and implications explicit. As they do so, students will learn and become skilled at using critical vocabulary. These skills will serve them well in many other areas of formal study and personal inquiry. Although our emphasis in this lesson is on micro-skills, there are opportunities to reinforce more global critical thinking objectives, such as exercising reciprocity and suspending judgment, as well.

This lesson contains some excellent material for analysis of reasoning. Although the subject is familiar, good supplementary information is provided. Nonetheless, the text fails to capitalize fully on the opportunity to use critical vocabulary and to explicitly examine Columbus's and others' reasoning. For example, the Thinking Skill, p. 93, doesn't identify the source of Columbus's 'wrong ideas' as wrong assumptions. The mental process of moving from assumptions to inferences to consequences is ignored. There is an attempt to show that Columbus's thinking was wrong, but little effort to show precisely in what respect it was wrong, why it was wrong, or how in some sense it was right. Vague, inaccurate words are used instead of the more precise critical terms. For example, the text uses the word 'guessed' instead of 'estimated,' 'calculated,' or 'inferred,' thereby nonchalantly suggesting that Columbus's thinking is based on a whim, and may draw attention away from the real thinking that went into this venture. The teachers' notes on p. 93, propose asking for students' 'opinions.' Since opinion need not be based on fact or reason, it would be more worthwhile to ask for students' evaluations, and the reasons on which they are based.

Activity #3 under "Developing the lesson," has students first copy the heading "Plans for the Voyage', then copy the main points. This activity is unimportant and should be eliminated. Activity #4 has students learn details about the kinds of ships Columbus used. It seems appropriate only for interested students, but is not important for the whole class.

Strategies Used to Remodel

S-23	using critical vocabulary
S-10	clarifying ideas
S-25	examining assumptions
S-20	practicing dialogical thinking
S-29	recognizing contradictions
S-14	evaluating arguments
S-30	exploring implications and consequences
S-5	suspending judgment
S-28	supplying evidence for a conclusion

REMODELLED LESSON PLAN

We have organized our remodel into four parts, following the general sequence of the student text for parts 1, 2, and 3, and adding section 4. The parts are labeled: 1) Identifying Columbus's assumptions and inferences, 2) Evaluating Columbus's reasoning, 3) Evaluating the consequences of Columbus's reasoning, and 4) Applications and extensions.

1) Identifying Columbus's assumptions and inferences

This lesson offers an opportunity for development or reinforcement of critical vocabulary and a chance to situate these concepts in a familiar context. You might begin by saying that Columbus was not only an explorer, but a thinker as well. This lesson will deal not only with what Columbus did, but with what he thought. Then you could have students read, 'The Written Records of Columbus,' identifying the notations as his conclusions about geography. ***S-23*** The class could compare 'inference' to 'guess.' ***S-10*** You could also ask, "What does 'guess' mean? If someone says, 'Guess what happened today?' what does she want you to do? Is she asking you to come to a conclusion based on evidence, or just say any idea that occurs to you? How can we describe Columbus's idea? Was it a wild guess? An intuitive guess? An educated guess? What word or phrase would be more accurate or specific?"

Then you might continue by saying something like, "We don't have the text on which

Columbus based his conclusions, but we can reason backwards to the *assumptions* he held about geography. What were his assumptions?" Students could read pp. 92-3 and list Columbus's possible assumptions and inferences. ***S-23***

Assumptions	***Inferences***
The Earth is a globe.	You can travel either east or west to reach your destination.
Asia is extremely large. *or* Earth has not much more area than we are aware of.	Asia is not far west of Europe.
There is no land east of Asia and west of Europe. We are aware of all major land.	If you sail west, the first land you reach will be Asia.
Current technology is adequate for safe navigation of the ocean.	It is possible to make the voyage safely.

Then students could distinguish his mistaken assumptions and inferences from those that were correct. ***S-25***

2) Evaluating Columbus's reasoning

We suggest that you read the background information on p. 92 to the class, and have them read 'Columbus Seeks Help.' You could now have students list the opposing assumptions and inferences. ***S-20***

Opposing Assumptions	***Opposing Inferences***
The Earth is much larger than Columbus thinks.	The trip will take 3 years, and cost too much money.
Navigation of the ocean is too difficult.	The trip can't be made safely.
What hasn't been done can't be done.	Columbus can't do it.

Then students could note the contradictions. ***S-29*** For each pair of opposing views, you could ask, "Could both of these claims be true? If the first claim is true is the second true or false? Do these claims *contradict* each other? The class could also speculate about Columbus's reasons for rejecting the opposing views. You could point out that at this point his biggest mistake was his certainty despite lack of sufficient evidence. Students could evaluate the relative reasonableness of the opposing views at that time. ***S-14***

3) Evaluating the consequences of Columbus's reasoning

Then you might have students read the rest of the chapter. You could ask, "Were Columbus's mistakes serious? ***S-30*** Why or why not? What were the likely consequences for Columbus of proceeding on the basis of faulty assumptions? What are the consequences generally? How was Columbus surprised? How was he fortunate?" At this point you could have students read, 'The Third and Fourth Voyages.' Then you might ask, "Which assumptions did Columbus revise? (Size of Asia and the ocean) Which did he not revise? (Lack of land between Asia and Europe.)" ***S-23*** Students could speculate about his reasons for maintaining his beliefs. If so, ask, "Can we be sure this is why? ***S-5*** How could we find out? If we can't find out, how should our conclusion be stated?"

4) Applications and extensions

The teacher could conclude this lesson with either a discussion or a written assignment as follows: Assess Christopher Columbus as a thinker. What were his strengths? Weaknesses? Was he a good critical thinker? Support your conclusions with specific examples. ***S-28*** Would you have advised him to make his voyage based on the information available in 1492? Why or why not? What evidence might have led Columbus to revise his assumption that there was no major land mass between Asia and Europe? Should he have revised it given the evidence he had? Why or why not? ***S-14***

An interesting corollary to this discussion of Columbus as a thinker might be to consider some of Columbus's personal qualities that helped and hindered him, such as, dogged persistence, enthusiasm, greed, courage, etc. Again, students should support their answers. This would be a good opportunity to illustrate how character traits influence thinking.

Students could also consider how people were affected by learning that there was a vast area they didn't know existed. This could be supplemented by referring to first-hand accounts from the period.

We can never become fairminded unless we learn how to enter sympathetically into the thinking of others, to reason from their perspective and eventually to try seeing things as they see them.

The United States Becomes A World Leader

(Social Studies - 5th Grade)

Objectives of the Remodelled Plan

The students will:

- clarify 'world leader,' and 'propaganda'
- clarify claims in their text
- discuss the role of sociocentricity in imperialism
- practice dialectical thinking when evaluating imperialism, by evaluating arguments for and against it

ORIGINAL LESSON PLAN

Abstract

This selection contains most of the material from a chapter on imperialism. It points out that before the Civil War the U. S. was not very involved in foreign policy. It mentions some expansion into Alaska, and the Pacific islands (in order to support trade vessels, and acquire Naval bases) and the desire to spread Christianity and our way of life. The chapter describes the revolt in and annexation of Hawaii. The rest of the passage focuses on the Spanish-American War, describing reasons for the Cuban revolt, the explosion of the Maine, and how those events affected American public opinion. It recounts some Philippine history, and Roosevelt's charge up San Juan Hill. The last section describes two main results of the war: the territories gained, and America's new role as a world power. It also continues a brief history of the Philippines until its independence.

The teachers' notes recommend a discussion of imperialism, examination of a time-line and a discussion of propaganda. The "Chapter Project" recommends two students be given an issue and asked to research and report on arguments from both sides. Detailed background information is provided for the Great White Fleet, inquiries into the causes of the explosion of the Maine, and the Philippine revolutionary, Emilio Aguinaldo.

from *The United States and Its Neighbors,* Timothy M. Helmus, Val E. Arnsdorf, Edgar A Toppin, and Norman J. G. Pounds. ©1984 by Silver Burdett Co. pp. 221-227.

Critique

We chose this excerpt because imperialism is an important aspect of U. S. and world history, and related ideas are at issue today. The text provides a fair amount of material relevant to evaluating policies of this period. It also provides, and suggests that the teacher discuss, an example where American public opinion was swayed by propaganda, and so provides a clear example of uncritical response to media. Yet the text does not encourage synthesized, fairminded discussion of the material. The text has more the appearance of fairmindedness than its reality. Details are given, then discussion moves on. Students are not asked to put the pieces together and develop a unified view. Rather, they are left with a choppy collection of unsynthesized, unassessed facts and vague ideas.

Imperialism

The suggested discussion of imperialism occurs too early, before enough details are covered to make reasonable evaluation possible. Students are not asked to evaluate specific actions described in the text. For instance, though the text mentions that Americans led a revolt against native Hawaiian leaders, that Congressmen wanted to annex Hawaii, and that the President disapproved of the way power had been seized, students are not asked for their evaluations of the different positions, or of the annexation that took place after the Spanish-American War broke out. The background material describes how the U. S. helped Philippine revolutionaries against Spain, and then, after the war, maintained control of the islands. Again, students are not asked for their reactions. Hence, their overall assessment of imperialism is unsynthesized with their conceptions of the details of imperialistic practices; the details have no place within a larger picture — no meaning.

The student text avoids describing how we acquired many of our territories; for example, *"we also controlled the Samoan Islands,"* and *"Soon Americans were starting large sugar plantations"* on Hawaii. A populated area does not change hands by itself. Neither the process nor the results of the changes are mentioned. Details are insufficient for evaluation.

More importantly, the questions on imperialism are incomplete and nearly one-sided. *"How do you feel about this policy?"* though neutral, merely asks for a 'gut reaction,' not for thoughtful conclusions. The other questions, *"What if the imperialistic country honestly feels it will make life better for the people in the country it is going to control?; We think we in the U. S. have a wonderful system of government. Do we have a responsibility to share it with other countries?"* both push positive conclusions about imperialism, and ignore other reasons people had for their actions. Though teachers are told to point out that *"Quite often the territory and people who were 'expanded into' were not pleased and resisted,"* students are not asked to consider this point when making their judgments. Apart from this remark, and some of the background information on the Maine and Aguinaldo, points of view other than American are neglected. Students do not ask themselves how imperialism relates to such American ideals as democracy and self-determination. The text doesn't raise the issue of how much good vs. harm was done to indigenous people, thereby leaving out relevant details.

Propaganda

The discussion of propaganda is incomplete. The teachers' notes state, *"Using the Spanish-American War as an example, point out the effect of propaganda on public opinion. The sinking of the Maine...was used to influence a public already outraged by the atrocity stories that had been appearing."* The heading 'Recognizing Propaganda' is misleading, since the passage points out propaganda's effects, not how to detect it. Such treatment is more likely to lead to a vague and impressionistic view that propaganda is bad, than to the ability to detect and discount it. Students should clarify the idea 'propaganda,' and discuss how to detect it and avoid its influence.

Other problems

The student text passage about the Maine is misleading. *"No one knows who blew it up"* assumes that people were responsible, whereas the teacher's background notes claim that it could have been an accident. Students could use the Maine example to explore how a nation of people can jump to unjustified conclusions based on insufficient evidence. The background material also suggests the effect of egocentric motives on the investigations of the incident. Again, students don't use the material to develop critical insight into how desires can affect interpretations.

The chapter project comes closest to critical treatment of the material, by having students learn the pros and cons for various issues. Yet, it misses being an assignment in critical thought for several reasons. It recommends debate, rather than analysis and evaluation. Students are not asked to respond to the points uncovered by their research. Most importantly, the assignment has students find reasons Americans gave, rather than having them also learn what other people involved.

Questions about the time-line take the form of questions about causal relationships. Students then look at the time-line and note whether the events occurred in the right order and near each other. This inadvertently encourages the false idea that if one thing happens right after another, it was caused by it.

Strategies Used to Remodel

S-10	clarifying ideas
S-9	clarifying issues and claims
S-17	clarifying or critiquing text
S-16	evaluating actions and policies
S-3	exercising fairmindedness/reciprocity
S-2	developing insight into ego/sociocentricity
S-21	practicing dialectical thinking
S-14	evaluating arguments
S-23	using critical vocabulary

REMODELLED LESSON PLAN

After our introduction, section 1) Clarifying 'world leader,' our remodel follows the original lesson through sections 2), Early acquisitions, and 3) Spanish-American War. Unlike the original lesson, the evaluation of imperialism occurs last, in section 4.

Interested students could be assigned research projects about the histories of some of the places discussed in the chapter, and could later share their knowledge with the rest of the class.

1) Clarifying 'world leader'

Either when beginning the lesson, or later, students could discuss the idea, 'world leader.' ***S-10*** You might ask, "What does the phrase imply? Why do some nations lead? What are the advantages and disadvantages of being a leading nation? What responsibilities does such a nation have? What responsibilities do its citizens have? What responsibilities do other countries have to it?" Students could also compare the idea of a good leading country with a good leader (person).

2) Early acquisitions

After students have read 'Expansion into the Pacific,' they could clarify the statement, "*It would be better, thought the merchants and sea captains, if these places were under American control.*" ***S-9*** You could ask, "Better than what? What are the alternatives? Why did they think this was better? Better for whom? Was it bad for anyone? Why or why not? Do you agree with the merchants and sea captains? Why or why not?" ***S-17***

When students have read through 'Hawaii,' you might ask, "What reason is given for expansion? What reason was given in the previous section? Given what the rest of the passage says, could there have been other reasons as well? Was it right for missionaries to go to Hawaii? Why or why not? Was it right for Americans to start big plantations? Why or why not? Does the text tell us how Americans came to own the land? Should the U. S. have annexed Hawaii then? What was different after the war started? Are the differences relevant to judging annexation? Does the text tell us what the native Hawaiians thought about these changes? What do you think they thought about them? ***S-3*** How could we find out? Did the Americans have the right to revolt? ***S-16*** Why or why not?"

3) Spanish-American War

When students have read 'Remember the Maine,' extend discussion under 'Recognizing Propaganda.' Have students discuss why the term 'propaganda' applies. (Some stories were untrue or exaggerated, the assumption that the Spanish were responsible for the loss of the Maine was unquestioned, and the anger it gave rise to was fueled and channeled into the desire for war.) The teacher could supplement the student text with the background material and the following questions: What, exactly does "Remember the Maine" mean? How was it used? Why did it become a rallying cry? What effect do you think it had on Americans? How, besides going to war, could the U. S. have responded to the Maine incident? What can we learn from this story? How can we distinguish propaganda from fair reporting? What could Americans have done to avoid being unduly swayed by propaganda? Why did the different investigations have different findings?" ***S-2*** (Discuss at length.)

When students have finished the excerpts (through 'Results of the War') and have heard the background information on Aguinaldo, they could evaluate policy toward the Philippines, with questions like the following: Why did Americans enter the fight between Spain and the Philippines? What happened after the war? What did the people of the Philippines think about that? Do you think they realized that, once free of Spain, their land would be ruled by America? What reasons did Americans of the time have for controlling them? What were the reasons against it? What were the alternatives? What do you think Americans should have done? ***S-16*** Why?

4) Evaluating imperialism

Such a discussion could naturally lead to an exploration and evaluation of imperialism. ***S-16*** Students could list pros and cons, and evaluate their relative merits. ***S-21*** If students have researched other countries' histories, and have not already given their reports, they could provide their reports before this discussion.

If this develops into an extended discussion, ask students to clarify their claims, develop their reasons, make assumptions explicit, clarify ideas, compare values, etc. ***S-14*** "Of which actions we've studied do you approve? Disapprove? (Alaska, Samoa, revolt in Hawaii, war with Spain, annexation of Hawaii, protectorate of Cuba, rule of Philippines, etc.) Why? What, if anything, should have been done differently? On what does evaluation of imperialism depend? Our country's interest? What native people want? What we think is best for native people? If these factors conflict with each other, which is more important? Why? Is there another way 'our way of life' could have been spread? Is one way better than the rest? Were the Americans interested in learning from native Hawaiians? ***S-2*** Why not? Should they have been?" Point out that every group of people assumes that their way of life is best. Students could extend discussion by considering how (by what criteria) different ways of life could be evaluated, if at all.

Use of critical vocabulary could be fostered, as well as analytical skills practiced, with such questions as: ***S-23*** What assumptions are you making? Why do you think your assumptions are good? How could we know whether we were helping the indigenous people? What criteria could we use? What facts are relevant? Which facts do we have? How do you know? How could we get the facts we need?" As always, discourage closed-mindedness, and have students restate opposing views whenever they have misunderstood or distorted them. If necessary, play devil's advocate for any position students ignore or downplay. ***S-3*** The teacher could have groups of students discuss their views on imperialism. Perhaps students who are unsure what to think could Socratically question strong proponents of different views. Such an exercise would be valuable questioning practice for the questioner, as well as helping the students being questioned develop their views. The Socratic questioners could then evaluate the ideas they've heard.

The class could compare this period with analogous periods they have studied.

A teacher committed to teaching for critical thinking must think beyond subject matter teaching to ends and objectives that transcend subject matter classification. To teach for critical thinking is, first of all, to create an environment that is conducive to critical thinking.

The Constitution

(Social Studies - 5th Grade)

Objectives of the Remodelled Plan

The students will:

- learn some functions of the three branches of U. S. government
- clarify claims in the text by exploring root issues regarding government and the distribution of power in our government
- compare ideals of the Constitution with actual practice
- develop criteria for evaluating candidates
- through Socratic questioning, understand the reasons for and assumptions underlying rights guaranteed under the Bill of Rights
- develop their perspectives on human rights, and functions and limits of government
- transfer understanding of the Constitution to current events

ORIGINAL LESSON PLAN

Abstract

This chapter, "The Constitution of the United States," begins with a paragraph about the Articles of Confederation and why they failed. It then lists the leaders at the Constitutional Convention. The terms 'republic' and 'federal' are explained, and some of the powers of the national government listed. Separation of powers and the three branches of government are briefly explained. Students are asked to state which powers from a list belong to the states, and which to the national government. Students are told about the Constitutional Convention debate between small and large states about how the number of representatives to Congress should be allotted, and how the issue was resolved. The term 'Amendments' is explained. Students are told that some states refused to approve the Constitution until the Bill of Rights was added. A three page Summary of the Constitution follows. Students are asked questions about the Bill of Rights.

from *The United States and Its Neighbors,* Timothy M. Helmus, Val E. Arnsdorf, Edgar A Toppin, and Norman J. G. Pounds. ©1984 by Silver Burdett Co. pp. 120-125.

Critique

Introduction

We chose this lesson for its emphasis on and summary of the Constitution, because understanding the Constitution is crucial to citizenship in a democracy. Students should explore the ideas underlying important aspects of our government: how it is supposed to work, why it was structured the way it was, how the structure is supposed to preserve citizens' rights, how it could fail to do so, and why some rights are important to preserve. Critical education demands clear and well developed understanding of these points. When understanding is superficial or vague, hidden agendas and mere associations guide thought and behavior. Slogans substitute for reasons, prejudices for thought. Citizens become willing to accept the *appearance* of freedom, equality under the law, and democracy, rather than fighting for their *realization*.

Summarizing the Constitution in language 5th graders can understand is an excellent idea, though some parts of the original could also be used. On the whole, the summary is good, though flawed by its incompleteness. For students to have enough details to understand the key concepts of the lesson, more of the specific duties of the branches of government should have been mentioned.

The greatest flaw with the lesson is its size and lack of depth; not nearly enough time is given to fostering understanding of this important document. This section is only part of a chapter which includes details of battles in the Revolutionary War. The relative importance of different material should be reflected in the text space given and time spent on it. Of the six chapter review questions, only one, a recall question, addresses the Constitution. Equal space is devoted to *"What do you think was the most important battle of the Revolutionary War? Explain."* Spending insufficient time on such important ideas leads the text to treat them superficially or vaguely. Students have little opportunity to understand key ideas fully, see the whole picture, appreciate reasons for important parts of the Constitution, or develop their perspectives on government, human relations, and how to preserve their rights.

Inadequate explanations

The lesson has too few questions, no extended discussion, and a number of the questions are trivial, or simple recall. Some of the suggested explanations and answers are sorely incomplete, confusing, or fail to answer the questions. For instance, the text answer to the question on why the right to a jury trial was considered important, is, *"It had been denied under British rule."* This answer is inadequate. Arson wasn't allowed under British rule, yet is not guaranteed under the Bill of Rights. The right to a trial by jury was included because the writers of the Constitution thought it was among the most important human rights. Students should consider why.

Important explanations are undeveloped. Questions about why the separation of powers and the Bill of Rights were included, for instance, fail to probe the reasons. The student text explains, *"The members of the Constitutional Convention wanted a government that would protect the people's rights, not take them away. So they divided the government's power into three parts, or branches. This is called* ***separation of power****."* Checkup question 4 (p. 120) asks, *"Why were powers divided among three branches of government?"* The suggested answer, by simply reiterating the abstract claim in the text, turns a thought-provoking question into a recall question. Students are encouraged to substitute reiteration for understanding; to accept an apparently unconnected answer as an adequate explanation. The text fails to explain *how* separation of powers protects people's rights.

The given answer to, *"Why was it necessary to add a Bill of Rights to the Constitution?"* is, *"because many states insisted that the people's rights as well as the rights of the government must be written down."* Again, the 'answer' fails to answer the important questions: Why did people think rights should be written down? What is the advantage? Why write them into the Constitution? Does writing them into the Constitution guarantee they won't be violated? Crucial questions and connections are left unanswered. Students are not left with a clear understanding either of the connection between separation of powers and people's rights, or of the importance of the Bill of Rights.

Superficial treatment

Though the Constitution is the only thing covered in the 'Skills Development,' the subjects, separation of powers and checks and balances, should not be covered solely in multiple choice format. Such treatment discourages students from considering *why* these ideas are important, how they work, or how they can break down. Nor is the importance of specific rights addressed anywhere in the lesson.

An activity, called "Applying Current Events," simply has students collect pictures of government officials and buildings and display them under the headings "Executive Branch," etc., displaying a superficial understanding of the connection between the Constitution and current events.

Confusions

The student text, when discussing the Constitutional Convention, says, "*Other things were not so easy to decide. The delegates knew they wanted a* ***Federal*** *government. In such a government the power is divided between the national and the state governments. But how much power should go to the states? And how much to the national government? They solved this problem by writing just which powers the national government would have.*" Suggesting that the problem of deciding how to allot power was solved by writing the powers down perpetuates sloppy, unclear thought in the students, and makes the actual decisions reached seem arbitrary.

Another confusion occurs in a suggested activity. The text suggests students write a Constitution for their class "*stating the rules the class needs.*" Constitutions are not lists of rules or laws, but rather definitions of offices, rights, and powers. By stating the activity in that form, the text inadvertently confuses students about the difference between a constitution and a body of laws.

Strategies Used to Remodel

S-17	clarifying or critiquing text
S-13	raising and pursuing root questions
S-22	distinguishing facts from ideals
S-11	developing criteria for evaluation
S-19	engaging in Socratic questioning
S-9	clarifying issues and claims
S-25	examining assumptions
S-8	developing one's perspective
S-21	practicing dialectical thinking
S-7	transferring ideas to new contexts

REMODELLED LESSON PLAN

Following the three remodelled parts of the original lesson, [1) Introduction to the Constitution, 2) separation of powers and checks and balances, and 3) the Bill of Rights], we have added discussions about human rights issues in foreign policy and international politics 4), probing the purposes and limits of government (5), as well as brief additional suggestions (6).

1) Introduction to the Constitution

When the passages about and summary of the Constitution have been read, to allow students a chance to get the 'big picture,' you may ask, "What is this document for? What is its purpose? What basic points does it cover?" ***S-17*** (It defines the three branches of Federal Government, describes how offices are filled, lists duties of and limits on each branch) You might read the real Preamble to the students, and discuss it with them. You could then tell the students about some of the details left out of the text. Among the most important and easiest to understand are the following points: Congress passes Federal Laws, establishes Post Offices, secures authors' and inventors' rights to their writings and discoveries, must publish statements about how much money it spent, and must send laws to the President to sign. If he vetoes them, they can pass the law if two-thirds of both Houses agree. The President can recommend laws to Congress, and, with Senate approval, can appoint Supreme Court Justices and heads of the Departments (the teacher may want to list some of the departments, or ask students to mention some.) The Supreme Court decides cases that were tried in lower courts but which one side wants to appeal. State governments cannot enter into treaties. Amendments must be proposed by two-thirds either of Congress or of State Legislatures, and must be passed by three-fourths of the States to become part of the Constitution. The class may want to discuss some of these points, (e. g., the difficulty of changing the Constitution, or why the President needs Senate approval). Students could reiterate the veto and override process, and discuss what protection it gives.

2) Separation of powers, and checks and balances

Discussion of the previous point can lead into a discussion of the separation of powers, and checks and balances. To probe these ideas in greater depth than the text, thereby making the reasons for our system of government clearer, you could ask, "Have you ever been in a situation where someone had too much power, or abused their power? Why was that a problem? How could the problem be solved? How did the authors of the Constitution try to solve it? Why not give all of the power to one branch, say, the Executive? ***S-13*** Why have each branch have some power over the others, rather than giving each branch complete control over its duties? What does the text say in answer to this question? ***S-17*** What does its answer mean? How could concentrating power lead to loss of people's rights? Make up an example which shows me how a system like this could prevent abuse of power. This separation of powers, and system of checks and balances is the ideal. ***S-22*** What could make it go wrong? (Using the checks and balances unfairly, or not using them at all.) Make up an example of how it could go wrong. Why would that be bad? What has to happen to make it work right? What should we look for in our leaders? ***S-11*** What sort of people should be chosen? (E.g., when voting for President, voters should consider who the candidate would appoint to important offices, or whether the candidate is a good judge of character. Perhaps members of Congress who abuse or fail to use checks on the President should be reconsidered.)

The class could also relate some of the above ideas to a specific historical issue by discussing the text section, "Congress," why larger and smaller states disagreed, the arguments for both sides, and the solution. The students could also try to come up with alternative solutions to the problem of abuse of power, and compare their solutions with those in the Constitution. ***S-15***

3) The Bill of Rights

Students may reread the Bill of Rights section in the summary. The teacher may also want to make the real Bill of Rights available, or have it read in class, and compared to the summary. Students could use the summary to generate a list of the rights covered. To foster in-depth understanding of the meaning and importance of the Bill of Rights, the teacher could conduct a Socratic discussion of each right, with questions like the following: ***S-19*** What does this right mean? ***S-9*** What does it say people should be allowed to do? How could it be violated or denied? How important is it? Why? Why would not having this right be bad? ***S-13*** How would it hurt the individual? Society? Are there exceptions to this right? Should there be these exceptions? Why or why not?

The class could also discuss the underlying ideas and assumptions behind the Bill of Rights, especially the First Amendment rights. ***S-25*** (The importance of following conscience, especially regarding political and religious beliefs; the idea that when everyone can discuss their ideas and consider all alternatives, the best ideas will prevail or compromise can be reached; people who do no wrong shouldn't have to be afraid of their government; even people who do wrong should have rights; trials in which both sides argue before a jury of impartial citizens will best render justice; government has an obligation to be fair to citizens - not just run things because it's strong; etc.) You might ask, "Why did some people want these rights written down? What are the advantages? Are there disadvantages? Are there important rights omitted? Should they be added to the Constitution? Why or why not?" Students could compare their answers to that given in the text. ***S-17***

For this activity, the teacher could split the class into groups, each of which could discuss one or two rights. One member of each group could then report to the rest of the class.

4) Human rights throughout the world

The class could also discuss these rights with respect to people all over the world, and so begin to forge their own perspectives on international politics, human nature, and the role of the U. S. as a world power. ***S-8*** "Do you think everyone all over the world should have these rights? Why or why not?" (You may need to point out that not every country has these rights: In some countries you can be put in jail for disagreeing with your government leaders, even if you don't advocate violence; you can be taken by the police or soldiers, kept, tortured and even killed without ever having a trial; you can be arrested for practicing your religion, or not following the rules of the official religion; etc.) Students could then talk about what, if anything, our government should do about these countries, or the people in them. "How should we treat such countries? Should we give them aid, or withhold it? What kind? Should we tell them we want them to change, or is it none of our business? What if most of the people of the country voted for the leaders that do some of these things? If people want to escape these countries, should we let them move here and become citizens? Why do some Americans object to this idea?" Teachers familiar with the UN Declaration of Human Rights could mention it here. If students express different points of view, the teacher could conduct a dialectical exchange, by having students defend their views, clarify key concepts, explore assumptions, and note where the perspectives conflict. ***S-21*** As always in such a discussion, encourage students to listen carefully to, and note strengths in, ideas with which they disagree.

5) Purposes and limits of government

The lesson could also be used for a discussion probing the purposes and limits of government, and deepen students' understanding of government and our Constitution. ***S-8*** The Preamble could be reread to initiate discussion. The following questions could be used to develop an analogy with, say, student government, if the school or class has one: Why do we have student government? ***S-13*** What does it do? Are you glad that there is student government? Why or why not? Why did the writers of the Constitution believe they had to start a government? Do you agree with them? Why or why not? What does government provide for us? (The class could use a list of Federal Departments to generate some ideas.) How could we have these things without government, or why couldn't we have them without government? What is our government *not* supposed to do? Why? What do people not like about having a government? Why do most people think having a government is worth the disadvantages?

6) Additional ideas

The lesson could also be linked to a unit on the news. ***S-7*** The class, or groups of students who could report to the class, could find newspaper articles about major bills being debated or passed, Supreme Court decisions, a Presidential nomination, or debates on foreign affairs. The class could outline both sides of the issue, pinpoint the relevant part of the Constitution, and discuss the implications of different possible outcomes. If the issue revolves around interpreting the Constitution, the class could discuss why there is no agreed upon interpretation. Students could also distinguish aspects of the issue involving the Constitution, from aspects which have become part of our government, but are not described in the Constitution.

Later in the year, when covering times when the various Amendments were ratified, the class could review the Amendment, what it means, why it was added, and some of its results.

Critical thinkers distinguish what they know from what they don't know. They are not afraid of saying "I don't know" when they are not in a position to be sure of the truth of a claim.

Looking Forward

(Social Studies - 5th Grade)

Objectives of the Remodelled Plan

The students will:

- identify some of their rights and responsibilities
- clarify claims in the text
- develop their perspectives on their lives and the future and compare them with that of the author, thus exercising independent thought
- pursue root questions regarding school, citizenship, and changes in the future
- evaluate how they spend their spare time
- discuss egocentricity as an obstacle to using spare time more effectively
- clarify 'thoughtful son/daughter,' 'thoughtful brother/sister,' 'good citizen,' 'role'
- develop awareness of their values and of ways they might affect the future
- practice dialectical thinking regarding changes they would like to see

ORIGINAL LESSON PLAN

Abstract

Students are informed that they have responsibilities and roles which will grow as they grow. The next four sections discuss four roles students have: as members of families, wherein students are asked to consider their responsibilities and what they learn from being family members; as students, wherein school is compared to a job; as people with spare time, wherein students are encouraged to use their spare time to improve themselves; and as citizens, wherein future responsibilities are discussed, and students are encouraged to begin being involved citizens now.

The next section briefly discusses technological changes since 1890 and suggests possible changes in the future. Two possible futures are then described; one negative, with people suffering from pollution, overpopulation, and starvation; one positive, with people enjoying healthy, active old age, no war, etc. Students then read a fable about a wise woman and a boy who tries to trick her. Since she always answers questions truthfully, he decides to hold a bird in his hands and ask her if it is dead or alive. If she says 'dead,' he will let it fly away; if she says 'alive,' he will kill it. The trick fails when she says, *"It is as you will, my child."* Students write about this statement.

from *The United States and Its Neighbors,* Timothy M. Helmus, Val E. Arnsdorf, Edgar A Toppin, and Norman J. G. Pounds. ©1984 by Silver Burdett Co. pp. 460-465.

Critique

Introduction

We chose this epilogue for the important ideas covered regarding responsibilities, citizenship, and the future. We commend the authors for encouraging students to begin to work toward a better future now, and for raising some important issues. The lesson, however, does not go far enough. On the whole, rather than realistically addressing and pursuing important issues in depth, and encouraging students to develop their own ideas, the chapter suffers from vagueness, superficiality and a preachy, moralistic tone.

It does not encourage independent thought. Rather, it presents ideas without requiring much reflective response from students. Suggested questions are few, and discussion limited. Throughout, problems and some solutions are suggested. The text ignores the importance of clear, extended, fairminded thought required before action.

Vagueness

This lesson fails to connect vaguely expressed ideals to specific behaviors. For instance, in the section on citizenship, the student text says, *"You have to take those same ideas of freedom and equality to heart. You have to be willing to stand up for them."* The text then lists ways for students to be active citizens now, and *"make the United States and the world better."* These suggestions include: encouraging adults to vote, understanding important events so they will be ready to vote, complaining about any unfair treatment they experience as consumers, recycling, staying away from crime, becoming involved in scout, church, or community groups. Most items on the list are not related to the above general comments. The general comments are not anywhere clarified or made concrete or real, i.e., how does one take ideas to heart or stand up for them? The most crucial or difficult concepts are left unanalyzed and vague. Without clarification, the ideals can become mere slogans with which all agree, but upon which few act.

The same problem occurs with the expressions *"build a better future"* and *"the future is in your hands."* The discussion neglects to raise such significant questions as, "What does 'better future' mean? Am I sure which changes really would be better? How much affect can I reasonably expect to have, and how? Why don't people already make these changes? What obstacles are there to such changes?" Such questions would bring the discussion from the level of abstract "Let's be good and wonderful" to specific discussion of what could be done, and what obstacles there are to doing them.

Superficiality

The section on school is especially disappointing. It describes students' present job thus, *"It is working hard in school....following the rules of the school....listening carefully to your teacher....cooperating with other students....coming to school every day unless you are sick."* The list of duties confines itself to mere outward behavior, completely overlooking the most important aspects. Education requires that students' attention be engaged, and that they think about what they learn. It also requires honesty: you shouldn't say you understand or agree, when you don't. Furthermore, critical education means listening to *everyone's* ideas and taking them seriously, not listening to the teacher alone.

The text discussion of the purpose of school is also flawed. It reads, *"You can learn a great deal about rights and responsibilities. And you can become prepared for a paying job later on that will be suited to your abilities and that you will enjoy."* The purpose of school is not confined to learning about rights and responsibilities and preparing for future careers. Absent from the passage are such ideas as satisfying curiosity, broadening perspectives, profiting from the knowledge acquired by previous generations, developing judgment and refining notions of right and wrong, learning how to fit details into a complete picture, developing the ability to communicate effectively, deciding what to believe, and developing a sense of intellectual power and autonomy. The bland and incomplete picture presented does not motivate students to take school or education seriously.

The teacher's notes display superficial and confused ideas about critical thinking. For example, at the end of the lesson is the following suggested writing assignment, *"Do you agree or disagree that 'our country's future is in your hands'? What evidence can you give to support your opinion? How does your opinion affect how you live at the present time?* " The main question is poorly phrased, since it encourages full agreement or rejection. Complete agreement with the claim is unrealistic; complete disagreement, cynical and defeatist. To avoid oversimplification, the teacher could rephrase the question to ask students to what degree, and in what ways the future is in their hands.

Most of the suggested assignments cling to superficial, trivial, or cute ideas, rather than also having students explore basic ideas. Among these suggestions are the following: *paraphrase JFK's words ("Now the trumpet summons us again — ... [a call to] struggle aainst the common enemies of man: tyranny, poverty, disease, and war itself."); build a model of a future community in space, underground, or underwater; write a one minute commercial that suggests ways in which people can build a better world; discuss the mechanics of solar energy.* More time should be spent on thoughtful discussion.

Although separating different roles helps simplify ideas, students should also explore the connections between different roles or aspects of life to avoid oversimplification. The following are among the possible points of connection and overlap: school and preparing to become voters; jobs and the desire for a better world; family, raising children and the desire for better world; family and job; etc. Students have no chance to put their ideas together into a coherent whole.

Strategies Used to Remodel

S-9	clarifying issues and claims
S-8	developing one's perspective
S-17	clarifying or critiquing text
S-10	clarifying ideas
S-1	exercising independent thought
S-16	evaluating actions and policies
S-2	developing insight into ego/sociocentricity
S-21	practicing dialectical thinking
S-23	using critical vocabulary
S-6	avoiding oversimplification
S-15	generating or assessing solutions
S-3	exercising reciprocity/fairmindedness

REMODELLED LESSON PLAN

This chapter could be used as a summary of the year, a chance for students to synthesize and exchange ideas, and evaluate their knowledge and values. Our remodel follows their six part organization. We have added one part at the end.

1) Introduction

When the first section has been read, you might ask, "What does the author mean by the sentence '*Rights always involve responsibilities?*'" ***S-9*** Ask for specific illustrative examples. You could extend the discussion of rights and responsibilities to our country. For each right mentioned in the text, you might ask what responsibility it implies and have students list other rights and responsibilities. (E.g., the right to vote implies the responsibility to be an informed and fairminded voter.) Of each responsibility, consider asking, "How can you live up to it? What does it require?" You could further extend discussion by asking, "Do you also have responsibilities to the rest of the world? As individuals? As citizens?" ***S-8***

2) Families

When the class has read the second section, the teacher could ask what the analogy of the U.S. to family means; what similarities and differences there are; what other groups are also analogous to families; whether the analogies are good, (i.e., whether the differences are significant,) and why or why not. ***S-17***

Students could also discuss the differences between a thoughtful and thoughtless son or daughter, and brother or sister. ***S-10*** If so, encourage students to mention specific examples of actions that fit in each category. Students may also compare their ideas about what they owe family members to behavior that is desirable though not required. Students could relate this passage to the last, by discussing responsibilities implied by their rights as family members.

3) School

The following questions could be used to extend discussion of the passage about school: Why does the author think school is important? ***S-17*** Why do you think it is important? ***S-1*** What is school for? How can it help you in your personal life? As a citizen? What knowledge is required to enable you to vote wisely, as opposed to simply filling out a ballot? What does the author say a 'job well done' at school means? ***S-17*** What do you think it means? What do you have to do to do a good job in school? What should you avoid doing in order to do a good job as a student? Is it easy or hard to do a good job at school? What aspects are easy? Hard? Students could develop self-awareness and awareness of others by comparing and discussing their answers. ***S-8***

Other possible questions include the following: What do you learn outside of school? What can you learn from friends? Family? Acquaintances? On your own? What makes a job or career good to have? What would a bad job be like? What aspects of a job or career are most important? Least important? Why?

4) Spare time

When students have read the section on spare time, they could discuss how they spend theirs; whether they are satisfied with how they spend it; ***S-16*** whether they think they should spend it differently, and if so, why they don't. This topic could be extended with questions like the following: ***S-8*** What other ways of spending you spare time would be productive? ***S-1*** Which do you think are most important? Which would you most enjoy? Would it be better to do something more important that you wouldn't enjoy, or less important that you would? Why? Would it be hard for you to change how you spend your spare time?

Why or why not? What could help you change? Why do some people use their spare time to improve themselves or help others? Do you have an obligation to do so? Why do some people waste all of their spare time? Should you use all of your spare time to help others or improve yourself? Why or why not? If not, how do you decide how much you should so spend?

5) Citizenship

When students have read the section on citizenship, you could use the following questions to help them to better understand the text, and clarify the idea, 'good citizen': What do *"take to heart"* and *"stand up for"* mean? ***S-17*** What does it mean to take those ideas to heart, or to stand up for them? How can you tell if someone has taken them to heart? How would they act? Not act? When would someone have to stand up for them? How could someone stand up for them? Why would it be necessary? Would it be easy or hard? Why? In what kinds of situations could you stand up for these ideas now? Have you seen anyone do so? Was it hard for that person? (Students could discuss such situations as a group of children treating someone unfairly, where no one stands up for justice. They could discuss why it happens, why it's hard to go against the crowd, and strategies for effectively doing so.) ***S-2*** Which suggestions in the text relate to these ideas? How?" ***S-17***

To have students clarify the term 'good citizen,' consider asking questions like the following: What are the differences between good, bad and indifferent citizens? ***S-10*** What things are listed as ways of being good citizens? Are they important? Why? Are they necessary? If someone doesn't do these things, is he a bad citizen? What do bad citizens do? Are there other ways of being a good citizen? For each suggestion, you might ask how it helps the country. Other questions could be added, such as the following: Which of all of these are the most important? Why? Which would be the most enjoyable? Hardest? Do countries also have responsibilities? What?" ***S-8***

6) The future

When the chapter is finished, consider asking, "What ideas here are the most important to the author? ***S-17*** How can you tell? Which do *you* think are the most important? ***S-1*** Which are the most interesting? Do you think that the two futures described are realistic? Why or why not? What other kinds of futures would be undesirable? Are there aspects of the second that you think are undesirable? Why or why not? Do you have an image of a better future? What is it like?"

To develop independent thought, students might brainstorm changes they would like to see. ***S-1*** You could then ask each student to rank them by their importance, or group them under such headings as 'most important,' 'less important,' 'much less important,' or 'undesirable.' ***S-8*** Have them share their groupings with the rest of the class. They may want to discuss their ideas at length. ***S-21*** If so, you could allow students to try to convince each other of their different priorities. Have them distinguish ideas they share from those they do not, and note contradictions, examine assumptions, clarify key concepts, supply and question evidence, reconcile differences, and point out relative strengths and weaknesses. Students could then practice reciprocity by arguing each others' positions. ***S-3*** Or students could be paired, with one student Socratically questioning another, to probe his beliefs neutrally. The students could then trade, and the other question the first.

Students could also discuss whether it matters if everyone agrees about which problems or changes are the most important. Students could also use their sense of priorities to expand their self-knowledge if asked such questions as, "What does how you ranked these ideas tell you about your values? If you think that this is more important than that, what are you assuming? Etc." ***S-23***

Students could also discuss the obstacles to changes. "What keeps people from making these changes? ***S-6*** What would have to happen, or what could you do to bring them about? ***S-15*** Are there ways that you are now working against this change? How? How could you stop?" Encourage students to be very specific, address their remarks to one desired change at a time, and give complete, rather than simple answers. You might provide questions like the following to help students extend their answers: How could you do that? What would you have to do before that could happen? What else would you have to do? And then? What could happen to prevent the change? Do some people disagree that your suggestion is a good one? If so, what could be done to convince them? What compromises would you be willing to make? ***S-6***

7) Additional suggested activities

Students should have a chance to discuss the passage as a whole, or pursue basic ideas in it, and relationships between the various topics. ***S-13*** They could clarify the idea, 'role.' ***S-10*** To have them do so, you might ask, "What examples of roles were given in the text? What other examples can you think of? What roles do you think you might be taking on later? Which roles are chosen and which do you not have a choice about? When you take on a role, are there some aspects which you can decide how do to? Are there some about which you have no choice? Which roles do you look forward to taking on? Which not? Why? Do you have to take it on, or can you choose not to? Is there a way of changing how the role is fulfilled so that you wouldn't mind it? What are the relationships between roles? ***S-6*** (E.g., between choosing a job and being a good citizen?) Would some choices of roles be incompatible? Would some roles help you fulfill others?"

The discussions could be summed up with a written assignment. Students could write papers in which they describe what kind of life they want (family, work, where they want to live, what interests, skills, arts or hobbies they want to develop, what public service they may want to do, what kinds of friends they want to have, etc.) Have them tell how they can begin to prepare for the life they envision, and the obstacles to doing so. ***S-8***

Or interested students who have had practice evaluating arguments could take one or more of the points read or discussed, and compare their points of view with that of the author or of another student. ***S-3*** Have them give a summary of each point of view to be discussed, highlighting differences, presenting arguments for and against each, and giving reasons for their conclusions. ***S-8***

Famous People: Gandhi

(Social Studies - 6th Grade)

Objectives of the Remodelled Plan

The students will:

- clarify 'unjust laws' through Socratic questioning
- exercise independent thought when evaluating laws
- evaluate methods of changing unjust laws
- probe underlying ideas of the relationship of governments to their citizens
- appreciate Gandhi's methods as a leader and evaluate solutions
- develop their perspectives regarding means of correcting injustice
- transfer ideas discussed when evaluating actions and arguments from current events
- explore the implications of rule without consent

ORIGINAL LESSON PLAN

Student text

Mohandas Gandhi In 1930, Mohandas Gandhi (moe-**hahn**-dahs **gahn**-dee), a short, thin, bald-headed man, walked 309 kilometers (192 miles) to help the people of India. This man was the religious leader of millions of Indians. They called him "Mahatma," which means great soul.

At that time, India was still a colony of Great Britain. It had been a British Colony since the 1700's. The British made the Indian people pay heavy taxes and obey unfair rules. One British law forbade Indians from taking salt from the ocean. It was illegal to possess salt not purchased from the government. Another British law made it illegal to oppose British laws.

Mohandas Gandhi's walk ended at the sea. There he bent down and took a handful of salt that had been made from seawater. Gandhi was arrested for breaking the law. Over the years, he was arrested many times. But he continued to peacefully protest the unfair British laws. In time, these unfair rules were changed, in part because of this man's peaceful disobedience.

Throughout his life, Gandhi used nonviolent protest to achieve his goals. For example, he often fasted to protest unfair laws. Gandhi believed that how a person acts is more important than what a person gains. He believed that those on the side of truth and justice would succeed without violence, even if protesting meant going to jail.

Gandhi was a leader in India's movement for independence. When India finally won its freedom from Great Britain after World War II, Gandhi helped the people of India begin the difficult job of self-government. In 1948, Gandhi was killed by an assassin who disagreed with his ideas. Nevertheless, Gandhi's beliefs and non- violent methods became models for peaceful protests in many parts of the world.

Teacher's text

Background

Mohandas Karamchand Gandhi was born on October 2, 1869, in Porbandar, near Bombay. Later he was called "Mahatma," meaning great soul. As a young man, he defied Indian custom by going abroad to study law. He went to South Africa to practice law, and found that Indians there were discriminated against. He spent twenty-one years there working for Indian rights. During that time, he began to experiment with nonviolent protest.

In 1915, Gandhi returned to India. He became the leader of the movement to free India from British rule. In 1920, he began a campaign of noncooperation. He urged the Indians to spin and weave their own cotton. He felt that this would help make Indians economically independent and would hurt the British textile industry.

He practiced civil disobedience and organized protest marches against unfair British measures. Eventually, Gandhi's tactics proved successful. The British could no longer rule the Indians without their consent. On August 15, 1947, India became a self-governing nation.

Teaching "Famous People"

1. Have the students read the feature on Mohandas Gandhi. You may wish to provide the students with some of the information given in the Background.

2. When the students have finished reading, ask them to speculate about why Gandhi deliberately broke the British laws. (Possible answer: He believed he had a right to protest against injustice; he wanted to protest nonviolently; he wanted to dramatize how unjust the laws were; he wanted to gain attention and sympathy for his cause; he wanted to attract supporters.)

3. Relate Gandhi's nonviolent approach to that of Martin Luther King, Jr.'s. You may wish to provide the students with information about King and the civil rights movement of the 1950's and 1960's. King began his crusade for civil rights in 1955 when he led a boycott of the Montgomery, Alabama, bus system because it discriminated against blacks. Through the 1950's and early 1960's, King's work was instrumental in guaranteeing voting and other civil rights for blacks. He was assassinated in 1968.

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Critique

We chose this lesson for its thought provoking subject and common form. Many texts have special mini-lessons focussing on individuals, though, like this one, they often fail to explore the individuals' importance in sufficient depth. Such explorations could allow students to appreciate the power of a dedicated individual, and the relationship of the individual to society.

The charge of unjust laws has been the impetus for innumerable revolts, revolutions, social upheavals, and public debates. Exploring the concept, related ideas, and current or historical events gives students a chance to develop and apply their ideas about government, law, ethics, and citizenship. Extended discussion of this material produces more well developed perspectives crucial to fairminded thought. The text fails to take full advantage of this opportunity by failing to encourage extended discussion, and by presenting conclusions, e.g., 'The salt law was unfair,' without allowing students to discuss their justification. Independent thought is best fostered by refined judgment achieved through practice.

Strategies Used to Remodel

S-19	engaging in Socratic discussion
S-10	clarifying ideas
S-1	exercising independent thought
S-13	raising and pursuing root questions
S-30	exploring implications and consequences
S-15	generating or assessing solutions
S-8	developing one's perspective
S-3	exercising fairmindedness/reciprocity
S-16	evaluating actions and policies
S-7	transferring ideas to new contexts
S-14	evaluating arguments

REMODELLED LESSON PLAN

After our suggested introductory discussion, 1) clarifying 'just vs. unjust laws', our remodel follows the two-part structure of the original: 2) responses to unjust laws, and 3) Gandhi's significance. In section 4) we suggest questions for additional discussions.

1) Clarifying 'just vs. unjust laws' *S-19*

When students have read the text and heard the background material, they could discuss the concepts 'fair' and 'unfair laws,' or 'just' and 'unjust laws,' with questions like the following: ***S-10*** What law was mentioned as an example of an unjust law? Is it unjust? ***S-1*** Why or why not? Can you give me examples of unjust laws? (Discuss each at length - Does everyone agree it is unjust? Why is it unjust?) Why did the British make the salt law? Students could reread the sentence, "*It was illegal to possess salt not purchased from the government.*" Why were the other laws we've discussed made? Then students might summarize the differences between just and unjust laws. They could also discuss their assumptions about the purposes and limits of government. ***S-13*** The teacher could probe student responses to earlier questions, eliciting assumptions, and basic concepts, etc.

2) Responses to unjust laws

To better understand Gandhi's significance, students could compare possible reactions to unjust laws, and their consequences. Encourage them to include examples in their discussion. You may use questions like the following: ***S-30*** What can people do when their laws are unjust here? Elsewhere? What have different people done? What happened next? Why? What was Gandhi's method? How was his approach unique? You could remind students of relevant background material; for example, the boycott of British cloth. Students could compare alternatives and their results, for both the individuals and countries. ***S-15***

Was Gandhi a criminal? ***S-10*** Do people have the right to break unjust laws? Why or why not? When? Under what circumstances? (You may point out that Gandhi's protests were public and publicized, and that he accepted the penalties imposed on him.)

3) Gandhi's significance

If using the part of the original lesson on Dr. King, the teacher may point out that similarities in method were no accident; King had been influenced by Gandhi. Students could discuss their impressions of Gandhi, and his role in history. What do you think of him? Why? Was he a great leader? In what way? (If students do not realize it, you may explain that he did not hold office; he influenced many people because he was loved and respected.) Why did he succeed in his goal to make Indians free? The class could also discuss other pacifists.

4) Other possibilities

Students may want to discuss their ideas about Gandhi's belief in nonviolence, and so develop their perspective on means of social change: Is violence ever justified? ***S-8*** Why or why not? Which works better, violence or nonviolence, or neither? If discussing at length, have students consider multiple points of view. The teacher could have students rephrase each others' arguments. ***S-3***

The passage could also be used to generate a discussion of the roles and responsibilities of governments, especially colonial governments. Again, encourage students to discuss as many specific examples and events as possible. The following questions could be used: What would you call a government that has a lot of unjust laws? If a group of people governs another, does it have an obligation to be just and fair to those it rules? Why or why not? What are some principles of fairness or justice? Does one group of people have the right to rule over another group against their will, or should every group be allowed to rule themselves? Why? ***S-16***

Students could also discuss the text statement: *"The British could no longer rule the Indians without their consent."* Ask, "What does this mean? Why couldn't they? If this is so, why do people tolerate unjust laws?" ***S-30***

The class could also relate these ideas to international politics and U.S. foreign policy by discussing questions like the following: ***S-16*** If a government has many unjust laws, should other governments do anything about it, or is it none of their business? Why? What, if anything, should be done? What might the people in the unjust government say? Would they think of themselves as unjust? Should we help governments that seem to us to be unjust?

This lesson could also be related to current events, or to a newspaper lesson, by using the ideas discussed, and applying them to examples of governments which have been recently charged with injustice. ***S-7*** Students could discuss the justification for the charges, come to their own conclusions, and engage in fairminded discussion. ***S-14***

The Soviet Union

(Social Studies - 6th Grade)

Objectives of the Remodelled Plan

The students will:

- exercise fairmindedness, when discussing the U. S. S. R.
- detect bias in the text, and ego and ethnocentricity in their own thinking
- distinguish two uses of the term 'political party'
- Socratically probe ideas underlying censorship

ORIGINAL LESSON PLAN

Abstract

These pages occur at the end of a chapter on the Soviet Union. The first passage discusses Lenin's importance to Soviets. The text mentions the Communist Party, describes elections, and discusses government control of books and newspapers. Students read an American girl's account of a Soviet school. The final passage discusses Soviet relations with other Communist countries. Students are asked to compare Soviet elections and schools with ours.

from *Europe, Africa, Asia, and Australia* Kenneth S. Cooper. © 1984 by Silver Burdett Co. pp. 229-231.

Critique I

Sociocentrism in the text

We chose these passages because while they purport to deliver a balanced, 'objective' picture of life in the Soviet Union, they maintain a strong sociocentric bias. The text's veneer of fairness makes the sociocentrism harder for a sixth grader to identify and deal with. Curiously, the lesson errs not only in its anti-Soviet bias, but in its omission of legitimate and important criticisms of the Soviet Union. The resulting picture is unfairly negative and at the same time inappropriately innocuous.

The critical thinker strives to consider opposing ideologies and practice reasoning empathically within different frameworks. This multi-faceted approach should clearly reveal strengths and weaknesses in each position, and enable the student to evaluate each as fairly as possible. Each position should be as fully a disclosed and open to scrutiny and as possible, so that a fair evaluation can be made.

The need for reciprocity/ examples

The section on 'Lenin - the official hero' gives the impression that the people in the Soviet Union are unsophisticated and extreme in their adulation of Lenin. *"All nations honor heroes, but few countries in modern times go so far as the Soviets do to honor their official hero."* Several subtle things are at work here: the use of the word 'official' implies a forced, unspontaneous promotion of Lenin as hero; 'modern times' gives the impression that the Soviets are old-fashioned and unsophisticated; *"few countries...go so far as the Soviets do...."* reinforces a view of the Soviets as extremists. All of these things may, in fact, be true, but there is little acknowledgement that other countries do very much the same thing with their 'heroes.' The tendency to lionize heroes of the past should be seen as one common to most countries, not just the Soviet Union. Teacher's note 'b' draws a parallel between Lenin and George Washington, but then derails the discussion into triviality by asking what monuments students might like to visit if they were to go to Washington D. C. It provides an opening for discussion of significant issues and then drifts off into banality, without ever having seriously probed similarities and differences. The text lacks depth of purpose here, and unfortunately this type of question is typical of many texts. Students are informed that a Soviet warned an American, *"You can joke about many things here but not about Lenin."* Students are asked why this was said. The given answer is, *"Because the Communist Party does not permit any criticism of Lenin or his ideas."* The answer is misleading, and, given the student text, a poor inference.

The text's discussion of "The government and the party" assumes that the concept 'political party' is the same for the U. S. and the USSR, and goes on to compare the operation of the Communist Party unfavorably with our system. (It is elitist, restrictive in membership, runs elections with no choice of candidates, and tolerates no opposition.) Here again, these things may be true, but they are viewed strictly from a U.S. perspective. Despite the instruction to the teacher on p. 230, there is no recognition that the *concept* may be understood differently by the Soviets, (thus altering the way it operates,) or that this problem comes up in a variety of contexts. A member of the Communist Party would likely give reasons for preferring that system.

On p. 230, the text says, *"Pravda gives the news that the party thinks people ought to read."* We have no desire to take issue with that view, but would encourage recognition that our newspapers also print only the news they think we ought to read. The difference is more of degree than kind. By failing to recognize tendencies common to most countries, the text isolates the Soviets and subtly conveys the message that they are somehow essentially different from the rest of the world, and us in particular.

In the same section, 'Books and newspapers,' favorable information is provided, yet almost every positive statement is followed by the qualifier, 'but.' Then the bad news is delivered. For example, *"The people in the Soviet Union read a great deal. But they are allowed to read only what is approved by the government." "More newspapers are printed in the Soviet Union than in the United States. But neither books nor newspapers print material against the Communists or the government."* Thus, what might be genuinely praiseworthy is generally sabotaged almost immediately. At the same time, the lesson fails to develop a sense of what is wrong with government control of reading material, leaving the criticism too abstract. The second part of the critique, addressing the end of the chapter, follows the first remodel.

Strategies Used to Remodel

S-3	exercising reciprocity/fairmindedness
S-24	distinguishing ideas
S-2	developing insight into ego/sociocentricity
S-17	clarifying or critiquing text
S-13	raising and pursuing root questions
S-19	engaging in Socratic discussion

REMODELLED LESSON I

Our remodel follows the sequence of the student text and can be divided into three major sections: 1) Idealization of heroes, 2) Comparison of aspects of Soviet and U. S. society, and 3) School in the Soviet Union. Section 3 appears after the second critique.

1) Idealization of heroes

Before having the class read 'Lenin—the official hero,' you might assign a student (or small group of students) to rewrite the passage, substituting the name of an American hero such as George Washington for Lenin, and make other appropriate changes (e.g., 'U. S.' for 'Soviet Union'). ***S-3*** Then you could have the student read his version to the class. Ask the rest if the passage seems extraordinary in any way. If so, how? Then you could have them read the original section in their texts. You might ask the students if they can think of other nations' heroes whose names might be substituted in the same passage. Since the analogy is not perfect (e.g., pictures of Lenin in living rooms), students should discuss whether any of the differences they noted are significant. You could point out that almost all nations and peoples honor their heroes in similar ways. The teacher's notes suggest asking the class why the American writer's Russian friend warned him not to joke about Lenin in the Soviet Union. It might be a good idea to point out that although there is no official edict forbidding joking about our heroes, Americans would be likely to react negatively to a Soviet visitor joking about Washington or Lincoln, for example. The discussion could extend to a consideration of how and why heroes are idealized and how they become symbols for national pride and patriotism.

2) Comparison of aspects of Soviet and U. S. society

For the next section, 'The government and the party,' we suggest that you use the suggestions to the teacher for class discussion. When students have considered differences between the Communist Party and political parties in the U.S., you could ask them if the word 'party' means the same thing in both systems. ***S-24*** "How might a Soviet explain the term? Is it fair to use our understanding of the term as the only right one?" ***S-2*** Next, you might point out that the text is using a particular concept of elections (ours) as the standard of reference. "Would a Soviet explain elections as the text does? What point of view is the text author taking?" ***S-17*** If possible, you could invite someone familiar with, and sympathetic to, the Soviet system to come and explain its operation and rationale, or have students write questions to the nearest Soviet consulate, and discuss the replies.

The segment on 'Books and newspapers' could be used as a springboard for discussing how and why newspapers in general select a portion of the news for their readers. ***S-2*** It should be pointed out that just as Pravda manages the news for its readership, American (and other) newspapers use screening techniques for their ends. Consideration of bias in newspapers is a large topic and could comprise a unit in itself, but some effort should be made to alert students to bias in their own cultural context as well as in that of the Soviet Union. Students could also discuss what is wrong with limiting people's access to written ideas. ***S-13*** You might ask questions such as: Why would a government want to control what people read? What assumptions might underlie this policy? What fears would the government have? Are ideas dangerous? How? Can you think of any examples where ideas have led to changes in government? Do people need protection from ideas? Some people? All people? Why or why not? How can people decide if what they read is true, partly true or false? Why would it be important to know how to distinguish? Does a person lose out by not having access to written ideas? How? Does a government lose out if its citizens don't have access to written ideas? Explain. ***S-19***

Critique II

Soviet schools

The text provides some very interesting information about school in the Soviet Union from the perspective of an American girl who attended 6th grade there. Nevertheless, the image of a gray, regimented life is underscored without much consideration of positive aspects of Soviet schooling. The text's answers to the question, "*What is school like in the Soviet Union?*" are that it is held 6 days a week, students have to work very hard, they take at least 12 subjects, including English and they have a lot of homework. This emphasis will almost guarantee a negative response to the Enrichment Activity (p. 230) asking pupils to report on whether they would like to attend a Soviet school. A more fairminded way to approach this, one which would foster reciprocity, would be to have the students discuss advantages and disadvantages of both educational systems and/or which gives a better education, considering the purposes of each. The text quotes Laurie Hedrick's and her father's observations of the Soviet school: there were no interesting class discussions, no games, and a strong emphasis on drill. These negative comments are followed by the further remark that the Soviet school '*did seem to get results....*' Here is a good opportunity for students to probe deeper, question the line of reasoning and examine the bias expressed. Another thing to consider is that most of these generalizations about school are based on a very small sample. It should also be noted that the educational system described as typical of the Soviet Union sounds very much like those of Western Europe and other Western aligned countries.

Omissions and failure to confront negative aspects of Soviet policies

The lesson concludes with a description of 'The Soviet Union in the world.' A sanitized version of Soviet aggression is presented here in an offhand manner. The invasion of Afghanistan is treated as follows: "*For example, in 1979, the Soviet Union sent armies into one of its southern neighbors, Afghanistan. This military action helped to support a government that was friendly to the Soviet Union.*" No mention is made of resistance or opposition, struggle or loss of life and loss of autonomy for Afghans. Only 'sent armies' would give a clue that this was an act of aggression. The same bland treatment of Soviet 'influence' in eastern Europe completely ignores the military force and brutality with which Soviets enforced their will on resistant populations. Nor does the text mention that the United States engages in similar ventures. The picture is certainly incomplete and misleading. Here the text errs not so much in the direction of sociocentric negativism but in failure to confront issues fully and realistically.

Strategies Used to Remodel

S-3	exercising fairmindedness/reciprocity
S-13	raising and pursuing root questions

REMODELLED LESSON PLAN II

3) School in the Soviet Union

Of more immediate interest to students is the next section on schooling in the Soviet Union. Have students read this section. As the students compare their subjects with those studied in the Soviet sixth grade (as in the text,) you might have them discuss the significance of the differences and similarities they have noted. "Are there advantages to the Soviet system? Disadvantages? How might a Russian student in the U. S. describe American schools?" *S-3* You could point out that the Soviet system is not unique to the Soviet Union, but is similar to those of many parts of the world, including Western Europe, Latin America and the Far East. If interest warrants, the discussion could extend to a consideration of purposes for schooling, how they differ from country to country and how they generate different systems.

As students answer the questions under Checkup, you could encourage them to respond to questions 4 and 5 fairmindedly, using points brought up in class discussion. Otherwise, this could degenerate into a stereotypically negative portrayal of life in the Soviet Union. *S-3* (The answers in the teacher's notes, p. 231, underscore this tendency to accentuate the negative and minimize the positive.)

Look for a variety of ways in which the various component strategies can be used in classroom settings: What do critical thinkers do? Why? What do they avoid doing? Why? When can this aspect of critical thought be fostered? What questions or activities foster it?

People Change the Earth

(Social Studies - 6th Grade)

Objectives of the Remodelled Plan

The students will:

- understand some ways people have damaged the environment
- clarify the term 'harmful' with regard to the environment
- develop criteria for evaluating changes people have made to the environment
- practice dialogical reasoning by discussing environmental changes from multiple perspectives
- identify organizations responsible for improving the environment
- through Socratic discussion, identify their role in improving the environment

ORIGINAL LESSON PLAN

Abstract

The lesson discusses the impact of people changing the natural environment in both the past and the present. Over hunting has resulted in the extinction of some animals; burning and clearing forests (as well as unwise farming practices) have led to erosion; over-grazing has extended deserts; cities have reshaped the landscape. Strip mining has scarred the land, mineral and water supplies have been depleted; air, water and soil have been polluted by industry, modern transportation and human wastes. The teachers' notes speak of the greenhouse effect, and advocate finding alternative forms of energy to fossil fuels. The term 'ecology' is defined and portrayed as a means for protecting the environment. Students are to list some ways the local environment is being protected. There is also a section on the polders of the Netherlands explaining what they are, why they were developed, at the same time showing a beneficial human change on the natural environment. Students are asked to focus on how and why people have changed the earth and how people are working to protect the environment. They are to rank these questions from least to most important.

from *Our World Today*, Jo Anne Buggey, Follet
Social Studies. Published by Allyn and Bacon ©
1983. pp. 108-115.

Critique

Exploring multiple perspectives in environmental issues

This lesson deals with an important topic, environmental change, but although it introduces some valuable concepts, the overall treatment is bland and incomplete. This type of presentation results in a superficial, overly simplistic understanding of the problems as well as a sense of personal distance from them. There is no attempt to promote individual responsibility for the environment.

One of the biggest problems of this lesson is the failure to consider a range of reasons for behavior which degrades the environment. For example, over-grazing is listed as a cause for the increase in size of the Sahara Desert, but there is no attempt to explain why the practice continues or why there is resistance to stopping it. In speaking of strip mining, water, air, and soil pollution, there is no hint of an allusion to corporate, individual, or government opposition to efforts to regulate their activities, nor a consideration of their reasons for doing so.

The critical thinker needs to consider problems, particularly controversial ones, from a variety of points of view and frame works of thinking. This sort of dialogical approach will reveal complexities, reasoning, needs and concerns which might otherwise be ignored or dismissed. Consideration of a broad range of views will provide a more solid, realistic, and compassionate base from which decisions can be made. In this lesson we are not asking students to solve complex environmental issues and conflicts, but to consider that all sides have points of view from which their reasons flow. This can serve both as a base for future involvement in actual problem solving in this area, as well as a model for critical thinking in other situations with multiple, competing points of view.

Exploring complexities in environmental issues

No mention is made of the cost of environmental clean-up, either to the offender or the general public. In fact, there is no specific mention of any particular agent or agency responsible for taking action to improve treatment of the environment. The captions under the paired pictures (before pollution and after clean-up) on p. 111, imply that the improvements just happened. *"Miners once stripped areas of Montana's landscape to get coal. After cleanup efforts the area looks hardly changed." "Past pollution made Lake Erie's waters unsafe for fishing or for swimming. The lake is now being cleaned up."* There is no discussion of the struggle involved in environmental improvement and the complex problems encountered in arriving at a solution.

Many textbooks tend to oversimplify both problems and solutions, giving students an unrealistic idea about how hard it is to solve problems, implicitly minimizing the world's need for good, fairminded thinkers. This weakness inadvertently fosters passivity, non-involvement, and the attitude that the problem will solve itself, or someone will do something about it. We think it is a counter-productive tendency which should be identified and corrected.

Both the teachers' notes and the students' text use the word 'carelessly' to describe how people have used the earth and its resources. This conveys an impression of innocence and unawareness, thereby minimizing the seriousness and urgency of the problem. On p. 112, one simple solution to the depletion of non-renewable resources is to *"find new mineral and water supplies. Settled areas may have to be abandoned as people search for new resources."* No other options are suggested or called for. This reinforces an underlying passiveness in approach. The discussion should address itself to what people must give up to achieve and maintain a clean environment.

Throughout the lesson, nuclear waste is not referred to as a pollution problem, nor is nuclear power named as an alternative source of energy. As these are very significant current environmental issues, they should be considered in some detail, from various viewpoints. Avoiding controversy stifles development of critical skills such as dialogical and dialectical reasoning and entering empathically into various views, recognizing contradictions, making assumptions explicit, etc.

Suggestions on text questions and activities

The key questions at the beginning of the lesson are good ones to consider. However, the suggested activity of having students vote to rank them in order of importance seems pointless. The follow-up on this at the end of the lesson calls for a re-vote, a discussion of why some answers were changed and a general re-ranking. The purpose of this is unclear and we would advise eliminating both activities.

Other questions emphasize factual recall, such as those on p. 114, and ignore more substantive questions. Question 5 under 'Checking Up' needs to be extended to include a consideration of who is taking responsibility for protecting the local environment, obstacles to the task, and the cost of the project.

Strategies Used to Remodel

S-3	exercising reciprocity/fairmindedness
S-10	clarifying ideas
S-11	developing criteria for evaluation
S-31	refining generalizations
S-20	practicing dialogical thinking
S-15	generating or assessing solutions
S-13	raising and pursuing root questions
S-7	transferring ideas to new contexts
S-19	engaging in Socratic discussion

REMODELLED LESSON PLAN

Our remodel basically follows the sequence of the original lesson plan which can be divided into three parts: 1) Introduction of the topic: harmful and beneficial changes to the environment, 2) Dealing with environmental pollution, and 3) Local environmental issues (suggested by question 5, p. 113.) To each section we have added elements which focus on bringing in dialogical questions to foster students' consideration of issues from differing frameworks and points of view, as well as encouraging a realistic look at the complexities of problem solving in this area. To section 1) we have added consideration of why people continue harmful practices (their point of view.) To section 2) we have added a discussion of how clean-up actually happens, who does it, who opposes it and why, as well as costs and a look at the nuclear waste question. Finally, we supplement section 3) with suggestions for discussion of ways in which students can accept personal responsibility for caring for their environment.

1) Introduction of the topic

One way to begin the lesson might be to have students consider the key questions on p. 108. We would add these to the list. "How do people decide when an environmental effect is harmful? Why might they disagree? ***S-3*** What resistance is there to environmental regulation and why?" It would be useful to explore the concept 'harmful,' clarifying it in relationship to the environment, and emphasizing degrees of harm. ***S-10*** Here are some questions you might use: What do we mean when we say something is harmful to the environment? Beneficial? What are some examples? Are all harmful things caused by humans? Are some things more harmful to the environment than others? What are some examples? How can you judge how harmful they are? ***S-11*** Are some effects short-term? Long-term? Etc. These questions will not be addressed in the text, but probably should be considered in discussions of material presented because they bring up crucial, practical aspects of the problems and they suggest the complexity and controversy inherent in environment management.

When students have read through the section on Polders and been provided with background information from the teachers' notes on pp. 108-9, you might ask, "Are all changes that humans make to the environment harmful?" Elicit specific examples of harmful and beneficial changes. You could emphasize that changes generally have mixed results; they are not all bad or all good. *S-31* To engage students in dialogical reasoning you might discuss some advantages of changes that have been made to the environment, particularly from the point of view of those making the changes. For example, removal of forests provides additional farmland, strip mining provides industry with needed raw materials, etc. *S-3* As students read about over-grazing on p. 110, you could discuss why nomadic cultures continue the practice. As students compare the pictures on p. 111, consider asking, "Why might mine owners object to replanting?" A solid discussion of these points should prepare students for an understanding of why there is resistance to regulation of use of the environment. *S-20* A next move might be to consider reasons people oppose certain changes to the environment. What are the harmful effects of some changes? The long-term effects? Aesthetic effects? How would one decide which interests should weigh most heavily? *S-11* What compromises might have to be made?" *S-15* Often there are local environmental debates which can serve as an additional focus for this discussion.

2) Dealing with environmental pollution

There could also be specific mention of who takes responsibility for monitoring the environment. At this point you could have students compare the pictures of Lake Erie. Ask, "Who is bringing about the clean-up? *S-13* Who is doing the clean-up? Paying for it?" You might mention government agencies (the EPA), private organizations (such as the Sierra Club), scientists, public opinion and individuals active in environmental issues. In order to help your students see some of the complexities of environmental protection, you might emphasize that clean-up does not happen automatically and that there are cost considerations that enter into most resolutions of these problems.

After students read the remainder of the lesson (pp. 112-3,) you could ask, "Why do people continue to pollute? What would it take to stop them? What are the implications of stopping? (higher taxes, lost jobs, more beautiful environment, preservation of a variety of species, better health) Ask, "Is the government responsible for any pollution? Why? Give specific examples. What can be done to get people to stop polluting?" We suggest that you consider introducing the issue of nuclear waste if it doesn't come up. This is an important, current controversy and should not be ignored.

3) Local and individual environmental issues

You could conclude the lesson by doing the 'Checking Up' questions, p.113. You might want to expand question #5 by adding, "Who is taking responsibility for protecting the environment in our area? Who is opposing it? What are some ways the environment in our area is being harmed? Who is going to do something about it?"

Interested students could investigate an area of local or personal concern, including consideration of the factors discussed in class, and present their findings to the class. If there is sufficient interest and consensus, the whole class could undertake such an investigation. This would logically lead to a consideration of ways students might join in implementing change, such as publicizing their findings in the local newspaper, writing to legislators, organizing litter pick-up activities, recycling, etc. This overall process should give students an understanding of the complexity of problem solving as well as a sense of personal investment and initiative in important issues. ***S-7***

Another way to encourage personal responsibility for caring for the environment might be to initiate a Socratic discussion of how students themselves affect their environment, considering such things as vandalism, litter, and careless consumption of resources. Here are some sample questions you could propose to your students: Do I affect my environment? How? Are there things I do without knowing it, which harm the environment? Do I use many resources? How? How does that affect the environment? What could I do to improve my environment? Are there any behaviors I need to change to help the environment? What is my responsibility to others who share the environment? Can one person make a difference? How? Etc. ***S-19***

This is not a "good-boy/bad-boy" approach to thinking, for everyone must think his own way to the ethical insights that underlie becoming a fairminded thinker. We are careful not to judge the content of the student's thinking. Rather, we facilitate a process whereby the student's own insights can be developed.

Countries of Eastern Europe

(Social Studies - 6th Grade)

Objectives of the Remodelled Plan

The students will:

- use map skills to draw conclusions and explore implications, thus exercising independent thought
- recognize the geo-political significance of the Bosporus
- transfer this insight to analogous configurations
- understand geo-political power struggles over the Bosporus from several points of view; exercising reciprocity
- develop criteria for evaluating source credibility (such as recognizing contradictions) and apply them to historical as well as personal reports
- engage in dialectical exchange to assess strengths and weaknesses of opposing views
- understand and refine generalizations, using probability qualifiers and critical vocabulary

ORIGINAL LESSON PLAN

Abstract

The lesson begins by identifying the countries of Eastern Europe along the Danube River. Geographical features such as the Carpathian and Balkan mountains, the Iron Gate, and the Hungarian Plain are indicated. Countries of the Black Sea are noted. The Bosporus strait is highlighted as a dividing point between Europe and Asia and as a water gateway to the Sea of Marmara, the Dardanelles and the Aegean and Mediterranean Seas. The importance of this water gateway is underlined. Student questions center on locating and identifying the countries and geographical features of Eastern Europe and explaining the interest of the Black Sea countries in controlling the Bosporus. Students are also asked to write a letter describing a recent class activity and then to note and compare differences in the reports. The teacher's notes suggest that this activity may be linked to Captain Cochrane's journey across Russia in Lesson 1. Captain Cochrane wrote *Narrative of a Pedestrian's Journey Through Russia and Siberian Tartary*, based on his walk across Russia in 1820. The text quotes and paraphrases his observations about the physical terrain, the climate, the resources, the cities and the people he met. He also wrote about the variety of ethnic groups he encountered as well as details about their customs and life-styles.

from *Europe, Africa, Asia, and Australia* Kenneth
S. Cooper. © 1984 by Silver Burdett Co.
pp. 186-201.

Critique I

We chose this lesson because it presents some excellent opportunities to explore the implications of geography and could, if developed, provide a basis for understanding important geo-political tensions which have shaped and will continue to shape world history. The text stops short of examining those implications, however.

We have divided the critique into two parts, the second of which follows the first remodel. The whole remodel has 5 parts: 1) situating the Bosporus and exploring its political implications, 2) extending insights to analogous geographical features, 3) evaluating source credibility, 4) applying source credibility criteria to historical reports and, 5) applying source credibility criteria to personal accounts. Section one is based on the student text. Sections two and five are our additions, while sections three and four are derived from exercises suggested by the text.

Pursuing implications and connections

One of the characteristics of critical thinkers is a propensity to probe the underlying structure of whatever they are studying. They ask questions such as: Why is this particular geographical feature highlighted? What is the larger context of this feature? How is it related to human activity? What is its history? What does the history tell me about its significance? How does this situation require understanding and synthesis of geography, technology, history, economics, and politics? Can I apply this insight to other situations? How do I know which other situations are similar? What features are alike? Different? How should I adjust for the differences?

If the lesson were taught as the original lesson plan suggested, the students would come away with a collection of memorized facts and only a minimal or superficial understanding of what they imply. Three out of four of the Checkup questions are factual recall. The fourth question asks, *"What is the Bosporus? The Dardanelles? Why are they important?"* The answer to the latter question, worded just as in the text, is, *"The Bosporus is important because it is the only way out of the Black Sea and because it makes it possible to cross a bridge to get from Europe to Asia. The Dardanelles is important because whoever holds it holds the water gateway to a large part of Eastern Europe."* The text does not make explicit the strategic considerations at work except to state the obvious. The suggestions under Enrichment (p. 198) again emphasize the compounding of factual information with no provision for thoughtful consideration of what that information might imply and why it is important to understand.

Fostering independent thought

Another characteristic of a critical thinker is the ability to think independently, to move away from slavish dependence on authorities (such as texts) to drawing her own conclusions and exercising the power of autonomous thinking. In this lesson, however, students are not encouraged to think independently and draw their own conclusions. If, as the text states, *"the map tells the story,"* why does the text immediately reiterate the story? The effect of such juxtaposition makes the map superfluous. In another instance the text states, *"It is easy to see the importance of this waterway."* This is followed by an elaboration of its importance: *"Whoever holds it holds the water gateway to a large portion of Eastern Europe."* The subject is then dropped and students are not encouraged to exercise their power of judgment independently. With the heavy emphasis on maps and map skills in this and previous grade levels students should be ready to use those skills to independently predict and explore the implications of geography suggested in this lesson. Instead, students are asked only the most obvious questions under 'Reading Maps.' The only interpretation students are asked to do is superficial and leads to no meaningful synthesis. The expression 'control gate' is not clarified, leaving the idea vague in students' minds. 'Control' implies a possibility of power, which has political implications.

Transference

The critical thinker regularly seeks to transfer new information and ideas to other contexts so as to link up her knowledge in meaningful patterns. This networking of ideas and information enhances memory as well as understanding. It is also an economical strategy which saves having to start from the ground up every time an analogous situation arises. Transfer maximizes the effort that has been expended in the first place to understand deeply.

This lesson fails to have students relate the conclusions about particular geographical features to others they have studied or read about. Rather than stressing general underlying principles inherent in geographical configurations, and having students transfer those principles to analogous situations, the text simply moves on to another subject. The Bosporus, therefore, is seen as unique rather than one of a type of significant areas.

The first two sections of remodel follow. The second part of the critique discusses insight into the use of primary sources in history.

Strategies Used to Remodel

S-1	exercising independent thought
S-30	exploring implications and consequences
S-3	exercising reciprocity/fairmindedness
S-7	transferring ideas to new contexts

REMODELLED LESSON PLAN I

1) Situating the Bosporus and exploring its political implications

You could begin this lesson by having the students study the map on pp. 466-7 of their texts. It would be useful to draw their attention to the Bosporus and ask them to use the scale of distance to figure out approximately the width and length of the strait. ***S-1*** Confirm the dimensions using the information to the teacher on p. 199. You might then compare the size of this geographical feature to something they are familiar with, or ask a student to make such a comparison. Then consider asking something like, "Why would the countries bordering the Black Sea be interested in the Bosporus?" It might be a good idea to focus on the transportation of supplies and trade goods. Next you might ask, "Do these countries have alternative ways of getting supplies or goods in and out of their countries? What are they? (air, overland) What are the advantages and disadvantages of each?" You could mention that the Soviet Union's other major sea-port is frozen in winter. In order to elicit that, in time of war, the country that controls an area can deny its enemies access to supplies, etc., you could ask, ***S-30*** "If Turkey went to war with the Soviet Union, what use could they make of the Bosporus? Would this be a serious problem for the Soviet Union? In what way? Ask, "What pressures might the Soviet Union or other Black Sea countries bring to bear on Turkey? What might they want from Turkey?

At this point, it would be easy to ask some more hypothetical questions which encourage students to synthesize ideas already discussed. The teacher could ask, "What if Turkey decided to close the Bosporus?" One idea would be to ask students to imagine that they represent one of the Black Sea countries, and submit a protest to Turkey carefully stating their reasons. *S-3* You could continue with other hypothetical questions such as, "What if Turkey decided to charge a high fee to ships using the Bosporus? What reasons might Turkey give for such an action? What might protesters give as their reasons for opposing it?" The teacher might give students the opportunity to pose hypothetical questions themselves to generate some of the conflicts possible in this particular geographical situation. *S-1* Solutions to the problems might be considered, if interest warrants.

2) Extending insights to analogous geographical features

The lesson could then be extended by discussing analogous situations in other areas of the world. *S-7* You might have students look for similar places on maps or globes, noting who owns each, and what other countries would have an interest in each, and why. (Suez and Panama Canals, Straits of Gibraltar, rivers, strategic mountain passes, etc.) Some students could research the histories of some of these, and report to the rest of the class. When a list has been made, you could use the following questions: Are, or have these areas been, the subject of contention? Why? What are some principles we learned about the Bosporus that might apply in these places as well? Why were you able to predict these tensions?

Critique II

Historical perspective

The concluding activity for this lesson, 'Writing a Letter,' has rich possibilities for fostering an understanding of historical perspective which transcends this particular episode and could tie together a whole set of related concepts, such as, bias, credibility, point of view, incomplete evidence, etc. Instead, after having students describe a group experience and exchange their descriptions, the text directs students merely to note differences to the class. Again, the text lays the groundwork for what could be a meaningful, in-depth understanding of historical perspective, but stops short of accomplishing those ends. Students do not discuss reasons for the differences, nor how different accounts could be reconciled or evaluated.

Evaluating source credibility

The questions on Captain Cochrane's account of his trip through Russia (pp. 187-8) toy with assessing historical perspective but are much too brief and superficial to teach students how or why they need to question such a report. The teacher should call attention to the *process* of evaluating reports so that it becomes a tool that can be used whenever appropriate.

Question 'd,' "*Do people always give favorable accounts of what they see or do? (No. Even the captain was critical of many things.)*" is basically a rhetorical question which doesn't go deeply into evaluation. It completely skips over a whole range of reasons for bias in reporting and is essentially useless. Question 'e' at least asks, "Why or why not?" but again, does not seriously give students a working strategy for dealing with historical reports.

If the text's purpose is to consider primary sources, much more of the significant parts of the source must be quoted. Here we have only isolated fragments used to punctuate the text's narrative. The text pays lip-service to an important application of critical skills, but does almost nothing to actually develop them.

Strategies Used to Remodel

S-29	recognizing contradictions
S-3	exercising fairmindedness/reciprocity
S-21	practicing dialectical thinking
S-11	developing criteria for evaluation
S-31	refining generalizations
S-1	exercising independent thought
S-12	evaluating source credibility
S-23	using critical vocabulary
S-7	transferring ideas to new contexts

REMODELLED LESSON PLAN II

3) Evaluating source credibility

At the end of the chapter, you could have students write their letters as directed on p. 199. Then you might have them share their accounts in groups and note the differences. (These can be categorized by the students, e.g., differences of fact, emphasis, interpretation, omission, etc.) Then, you might ask students, "Why are there different accounts of the same experience? Do these accounts contradict each other? ***S-29*** Can they be reconciled? Can we say that some accounts are more accurate? Why?" If disagreements arise, students could defend their positions, and explain opposing views. ***S-3*** Encourage them to modify their positions in light of the strengths of opposing views. ***S-21*** Students should generalize about what makes some accounts better than others. Consider asking, "Which are right? How do you know? What are some of the criteria for deciding which accounts are best? ***S-11*** (accuracy, completeness, objectivity, fairness, etc.) Is it bad or good to have different accounts? How does your picture of the event change by reading several reports? How could a perspective be strengthened by incorporating others into it?" (Encourage students to take aspects of more than one point of view, and describe a more complete idea. It would be a good idea to encourage the use of qualifying terms, e.g., most, probably, often, etc.) ***S-31***

4) Applying source credibility criteria to historical reports

Next, review the account of Captain Cochrane's visit to Russia. You might ask, "What questions would you ask about Captain Cochrane's report to help assess its historical validity?" ***S-1*** You could suggest that they use the criteria previously developed in "Writing a Letter." Questions should address accuracy, fairness, credibility and completeness, etc. Possible questions might be, ***S-12*** "When did he write his report? As he travelled or after? Would this be important to know? Why or why not? What aspect of the report's truth would it affect? Have you ever tried to write down a sequence of events some time after they occurred? Give specific examples. What problems did you find?" You could also consider asking, "Did he leave certain things out of his report? Why did he select the things he did report on from all the possibilities? What accounts might have been given about his trip by the people he met? Is there anything in the text that helps you infer what kind of a reputation for reliability Captain Cochrane might have had? ***S-23*** Can you infer to whom he wrote? Was he paid in advance for his report? Would this affect what he said? How? What kind of background did Captain Cochrane have? Was he well educated? Had he travelled much, read much? Why could these questions be important to ask? Are there any other accounts that might support or undermine his observations? Can you think of other questions that might help you to detect or assess an author's point of view? (Was he paid for writing his report? By whom? How might this affect what he said? Was he the kind of person who liked everyone he met and thought everybody was friendly?)" This line of questioning could generate a lengthy discussion leading to a critical understanding of how history is written and how it represents a certain perspective rather than absolute truth. It is also important for students to ask questions rather than always depending on the teacher to do it.

5) Applying source credibility criteria to personal accounts

Another extension of this lesson could be made by drawing on students' experience. *S-7* They could relate an event reported in the school or community newspaper, a T.V. story, someone's account of an accident, a fight, etc. Then students could assess the strength of the report using the criteria developed above. (The teacher could mention application of these principles in courts of law.) They could also relate the above to other history or geography lessons. (E.g., compare how American and British accounts of the Revolutionary War would differ.) By this point they should begin to generalize principles of critical assessment applicable to a variety of situations, producing fairly sophisticated critical insights that will help them have a better understanding of how a reporter's perspective influences his report.

The goal is to explain critical thinking by translating general theory into specific teaching strategies. The strategies are multiple allowing the 'novice' critical thinkers to begin with more elementary strategies, while the more 'advanced' critical thinkers can use more complex strategies.

Governments and Economic Systems

(Social Studies - 6th Grade)

Objectives of the Remodelled Plan

The students will:

- distinguish politics from economics, clarifying confusion in the text
- state advantages and disadvantages of different economic systems, avoiding stereotyping and oversimplification
- elaborate implications of various economic concepts
- identify basic assumptions behind each system
- in each system, distinguish ideals from facts
- practice dialectical reasoning and reciprocity in arguing strengths and weaknesses of opposing economic systems
- develop insight into sociocentricity and how to overcome it

ORIGINAL LESSON PLAN

Abstract

The lesson defines 'economics' and then discusses the current dominant economic systems: capitalism, socialism, and communism. Elements of capitalism include the role of government and its relationship to the private entrepreneur, as well as the role of profit and competition. Consequences to workers and consumers are outlined. The text emphasizes that no system is 'pure;' there is overlap in all three. Likewise for socialism and communism, the elements of government ownership and control of production and resources are explained, along with consequences for consumers (little choice of goods, one price) and workers (set wage levels). Great Britain is cited as an example of a mixed economy, with elements of capitalism and socialism. Russian communism is discussed with attention drawn to the gap between stated goals (no rich or poor) and actual practice. The text stresses the role of the government in regulating all aspects of the economy. A short digression on the Russian political system follows. A chart showing the three systems on a continuum and another comparing features of the three systems are included at the end. Students are asked to describe how each system works, give an example of where each is practiced, compare them, and designate which system they prefer and why.

from *Our World Today*, Jo Anne Buggey, Follet Social Studies. Published by Allyn and Bacon © 1983. pp. 418-423.

Critique

Clarifying concepts

We chose this lesson because the important subject could provide a good basis for subsequent study and expanded understanding in later grades. Unfortunately, in some ways, the text actually lays the groundwork for prejudice and misunderstanding. One point about which the authors seem particularly confused is the relationship of communism to socialism. The text says, *"Communism is a special form of socialism,"* yet also says that there are three kinds of systems.

The text also perpetuates the common confusion between economics and political systems. Although elections, a political phenomenon, are not mentioned in the discussions of capitalism or socialism, they are discussed under communism, thus inappropriately fusing political elements into a consideration of an economic system. The effect is to discredit communism, the economic system, by criticizing political practices of the USSR's government.

The picture on p. 420, shows a crowd of people in a department store. The caption says, *"Under communism people have few choices when purchasing goods."* There is no way of getting to this conclusion by looking at the picture. How are students to *"discuss how this photograph helps explain the text"*? What they are in effect asked to do is make a negative judgment about communism with totally irrelevant evidence. The teacher's text (note #2, p. 419 in reference to the picture) also equates the terms 'worker' and 'consumer,' as though owners were not also consumers.

Facts vs. ideals

The text confuses ideals with reality when discussing capitalism. For instance, on p. 418, the text states that businesses and industries compete by *"having lower prices or a better product or both."* This may be true in some cases, but often businesses merely *claim* to have a better product, when in fact the product is no better than a competitor's or in some cases is worse. The paragraph continues, *"Under capitalism a worker is free to work or not to work. Of course, those who do not work may not be able to buy the goods and services produced."* This is like saying that the workers are free to starve, when in fact the eating imperative may significantly affect their freedom to not work. Furthermore, there are many who want to work but cannot. Again, *"Workers are also free to choose the kind of work they want to do. No one tells them that they must take certain jobs."* While this is partly true, it is far from completely true. Workers are constrained by their opportunities for training and education, as well as by the shifting demand for certain types of labor, and many are not hired for reasons irrelevant to the job.

Sociocentrism and bias in the text

The lesson's treatment of socialism is somewhat more balanced, although much shorter than either capitalism or communism. Some general strengths and weaknesses are mentioned, albeit briefly. Students do not actually get a chance to explore specific advantages and disadvantages for the average citizen, such as free health care and heavy taxes.

The text's portrayal of communism, on the other hand, is one-sided and emphasizes the negative. The text is quick to point out that the communist ideal of eliminating social class distinctions *"has never been met in any of the communist countries."* The progress toward the ideal is not mentioned (e.g., China). The advantages of capitalism are touted while those of communism are either passed over lightly or altogether ignored. The disadvantages of capitalism are never made explicit. Although unions are mentioned, and the basis of worker/owner conflict laid, there is no follow-through and no detailed discussion of the sometimes violent struggle that has characterized this movement in the United States. Sweeping statements such as, *"Control by a communist government is complete."* serve to drive home the ominous message.

The larger problem in the lesson is sociocentricity. As it stands, the lesson does not encourage fairminded examination of each economic system for its strengths and weaknesses. Most people reading this lesson would not have the faintest idea why anyone would be anything but a capitalist. A critical thinker studying this material would want to understand, as fully and empathically as possible, why people support alternative economic systems. To do this, she would be willing to confront weaknesses in her own system, rather than seeing it as flawless. Likewise, she would be willing to view opposing systems from the perspective of their intelligent advocates, genuinely recognizing those systems' strengths as well as their weaknesses. This lesson gives students the impression that they have understood socialism and communism fairly, but it actually manipulates the material to inculcate an uncritical acceptance of capitalism and an uncritical rejection of socialism and communism.

Correcting misunderstanding and oversimplification

The text reiterates instructions to the teacher to emphasize the mixed nature of economic systems; that no country practices 'pure' capitalism, socialism or communism. This is a laudable move, but it is not sufficiently backed up in the text. The passage noting socialist aspects of the U. S. economics is not connected with the idea that no country has a 'pure' system. Where the text mentions the postal service and passenger rail service, it characterizes the government as an 'owner,' thus hiding the similarity to communist 'government ownership of the means of production.' Communist countries' divergence from communism is not mentioned.

Moreover, the text doesn't do an adequate job of explaining capitalism's strengths. The implications of capitalism are not explored either. Most claims about capitalism are left too abstract to be meaningful.

The questions at the beginning of the lesson and in "Checking Up" are oriented toward simple recall, omit fair comparison and evaluation, and should be supplemented. Question #5, "*Which economic system do you prefer? Why?*" is guaranteed to produce the answer, 'capitalism,' given the general orientation of the text. More detailed and in-depth evaluation should be substituted.

Strategies Used to Remodel

S-24	distinguishing ideas
S-30	exploring implications and consequences
S-2	developing insight into ego/sociocentricity
S-25	examining assumptions
S-3	exercising fairmindedness/reciprocity
S-17	clarifying or critiquing text
S-22	distinguishing facts from ideals
S-6	avoiding oversimplification
S-21	practicing dialectical thinking

REMODELLED LESSON PLAN

The remodel we have developed follows the order of the student text and adds an activity/assignment section at the end. It is organized as follows: 1) Clarification of terms, 2) Capitalism, 3) Socialism, 4) Communism, 5) Suggestions for concluding activities.

1) Clarification of terms

When the students have read the first paragraph in which economics is defined, it would be a good idea to have them distinguish it from politics or government. ***S-24*** One way of doing this would be to ask the students what was covered in lessons on different forms of government. They could compare the subject with economics. The teacher could list the names of political systems and the names of economic systems. It is important to make students aware of these differences in order to sort out the confusion which occurs later in the lesson.

2) Capitalism

Then, students could read the section on capitalism. You might discuss its essential features and list them on the board. (Include individual ownership and control of money, property and resources; profit; competition; freedom of workers) You could extend the discussion of each feature and its implications for citizens. ***S-30*** For example, in discussing competition, the class might mention that, associated with it, are usually winners and losers; there is sometimes a degree of risk; advertising is important; a variety of products may result; there are appealing incentives; ingenuity, creativity and novelty may be rewarded when profitable, and so on. When discussing 'profit,' you could mention the pressures it puts on owners and their businesses or industries. "How have those pressures affected the workers? The product? The owners? Why are unions necessary? Why would owners be likely to resist unionization? What are the concerns of unions?" ***S-20*** You could also point out that for capitalism to work, consumers have to be smart shoppers. Then you might ask, "What are the goals of capitalism? For owners? For workers? For consumers? Do these goals conflict? How does the system address the conflict? On what assumptions about people is this system based? ***S-25*** What does this system assume about why people work and create? What evidence is relevant to settling the issue? What is your position? Why? What can make this system go wrong? Do you approve of the goals? Have they been achieved? To what extent?"

Next, by way of summary, you might ask the students to mention some of the problems or disadvantages associated with capitalism. ***S-20*** "What might be some ways of dealing with those problems? What are the advantages of capitalism? Why do people defend it?"

Now you could direct students' attention to the fourth paragraph on p. 418. You might point out that the authors of the text are talking about some ideals of capitalism here and that if examined, a gap between ideals and facts will be discovered. ***S-22*** You could ask questions such as: Could you give an example of a product you use where you have a choice of several brands? Is one always clearly better or lower in price than the others? How do you know? What influenced you to buy it? How could we expand the text's explanation of how competition affects products? What happens if a worker decides not to work? When you don't have the money to buy food and housing, is not working a real option? If a worker is responsible for other people, is he 'free' to choose not to work? Are workers always free to choose the kind of work they want to do? If you walked into IBM and asked for a job would you expect to be hired? Why not? Do people always have the opportunity for education or training for a job they want? What might stand in the way of their acquiring the necessary education? What happens to workers when their company closes down? Are they free to get whatever job they want? Why not? What other factors might make it hard to get the job you want? (racism, sexism, lack of 'connections,' etc.) ***S-17***

Talk specifically about what the facts are (see critique) and why it is misleading to state ideals as if they were completely realized. ***S-22*** You might mention that this is a common characteristic of many kinds of writing, including textbooks, and that readers should be alert to this. The teacher could also ask, "Why would an author want to state ideals rather than facts? What harm is there in stating ideals as if they were facts?" Develop the discussion as interest warrants.

3) Socialism

The class could now read the section on socialism. We suggest that you proceed in the same manner as with capitalism. You might list the essential features of socialism for clarity. Since the text does not, the teacher should include some of the benefits that socialism ideally provides, such as comprehensive health care, free education through university level, guaranteed employment, etc. ***S-3*** Ask, "What are some of the goals and ideals of socialism? What do you think of them? Have they been achieved? To what extent? Why or why not?" You might point out that there is not 100% employment in socialist economies. What might be some implications of the features of socialism? How are the services, such as free medical care, paid for? ***S-30*** What would life be like for a person living under socialism? How would it be different from capitalism? The same? Where is socialism practiced? Why are there unions in socialist countries?"

To establish an understanding of the relationship of political systems to economic systems, you might ask, "Can there be free elections in a socialist country?"

Then students should be ready for the teacher to share the background information on p. 418, emphasizing that no country has a pure version of any economic system. You could talk about some of the aspects of socialism in our economy. ***S-6*** You might mention (or have students mention) Social Security, Medicare, etc. "Why are these 'socialist' in nature?" You might point out the last paragraph of the Capitalism section, emphasizing that the government controlled postal and passenger rail services in the U.S. are further examples of aspects of socialism in our economy.

4) Communism

When students have read the section on communism, you could ask, "What are some goals of communism? What do you think of its goals? The text says that they have never been achieved. Why is this so? Is that true only for communism?" ***S-3*** Then you may want to discuss communism's essential features. You could ask, "What are some differences and similarities between communism and socialism?"

You could have students review the distinction between economics and government. Then you could consider with the students the third paragraph on p. 420. You might ask, "Is the text discussing economics or politics here? What political aspects does it bring into the discussion? What is the source of the confusion? Why do you suppose the author mixes in political considerations in this section? ***S-17*** Was it done in the other sections? Can we critique the chart on p. 420? (It is inaccurate to suggest that socialism is in the middle of a continuum between capitalism and communism. The degree of socialism could vary all the way from near complete government ownership to near private ownership. This simplistic representation defeats the text's own stated purpose of emphasizing mixed systems.)

You could ask the students to critique several other textual biases. You might point out that the sentence, "*Control by a communist government is complete.*" is inaccurate. Ask, "Why? Control of what? What impression does this sentence give? Is it fair? Why or why not?" Then you might want to discuss ways in which the government of a particular communist country does not control its citizens. You could ask students, "Why do you suppose the author of this text made such a statement? How would you restate it more accurately? What are the authors guilty of here?" (bias)

You might continue by asking students to critique the picture and its caption on p. 420. "What does the picture show? Is the caption made clear by the picture? Why was it done this way? Is this another example of bias? Why or why not?" Or the teacher could have some students look at the picture and not the caption, others just the caption and try to guess what the picture could be, others could look at both. You could have students compare their impressions. To finish the section on communism, it might be useful to discuss advantages and disadvantages, as for the other sections. ***S-3***

5) Suggestions for concluding activities

Several concluding activities could now tie the lesson together. One would be to assign students to role play defenders and critics of all three systems. They could compare the assumptions, basic concepts, and values of each. ***S-21***

A written assignment might be given as follows: "People who emigrate from the USSR to the US sometimes have difficulty adjusting to our economic system. Could you predict what some of those difficulties might be and why it could be hard for them to adapt?" (If desired, the assignment could be reversed for an American taking up residence in the Soviet Union.) ***S-3*** Another written assignment might be: Explain the goals of each of the economic systems studied. Compare them and then give your evaluation of each. Consider such things as: fairness, whether the goals are easy or hard to achieve, etc. Or students could write their analyses and assessments of the text.

As a more extended project, students could find examples of each type of economic system. They could then determine what kinds of governments these countries have. They could also consider: Which have good relations with us? Poor? Can you see a pattern here? Why might capitalists and communists not trust each other?

One does not learn about critical thinking by memorizing a definition or set of distinctions.

The Birth of Modern Europe

(Social Studies - 6th Grade)
For original, see appendix.

Objectives of the Remodelled Plan

The students will:

- Socratically consider some purposes for studying history
- identify and understand the underlying structure and assumptions of feudalism, using critical vocabulary appropriately and clarifying ideas
- examine feudalism from the perspectives of nobles and serfs, thus practicing dialogical thought
- identify diverse manifestations of basic ideas of feudalism in other Medievalinstitutions, transferring insights where appropriate
- discuss the implications of some of feudalism's basic ideas
- critique and clarify oversimplification and vagueness in the text
- infer meaning beyond the text's statements, thereby refining some of its generalizations
- reason dialogically when examining and comparing feudalism and other systems

ORIGINAL LESSON PLAN

Abstract

The lesson begins by explaining the development and perspective of the terms 'modern' and 'Middle Ages' as used by historians, as well as pointing out the diversity of life in Europe during the period. The lesson focuses on the life of William the Conqueror, his boyhood, his claim to the throne of England, and the Battle of Hastings. The mechanics of feudalism are elaborated: vassalage, fiefs, waging war without taxes. Reasons for frequent breakdowns of the system are noted. Details of daily living such as the construction of castles, life on a manor, and travel are included.

The text devotes significant space to describing the life of the serfs, attachment to the land, farming methods, other duties performed, surnames, relationships to the lord. This is parallelled by a description of life in the cities for the middle class, including a description of some trades, the exchange of goods and services and the structure and influence of guilds. The text details the system of apprentices, masters and journeymen.

A section on Eleanor of Aquitaine follows, tracing her marriages and sphere of influence. The Crusades are briefly mentioned in connection with one of her husbands, Louis VII. The lesson concludes with a passage about monks and nuns, featuring Bernard of Clairvaux. After a brief biography, Bernard's daily routine at Cîteaux is recounted by way of contrast to other Medieval life-styles previously considered. By the end of the lesson, students are expected to understand the terms 'modern,' and 'Middle Ages,' to explain how feudalism worked, to describe the ways guilds operated and restate the general vows monks and nuns took.

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Critique I

Overview of the study of History

Many of the social studies programs we have looked at heavily emphasize history. We chose this lesson as a representative of that type, hoping to provide an example of how a teacher of critical thinking might approach a history lesson. We have divided the critique into three parts, the remodel into nine. Lesson Plan I includes sections 1) Introduction to the Middle Ages, terminology, and 2) William the Conqueror. Lesson Plan II includes sections 3) Feudalism, structure and basic features, 4) Feudalism, underlying ideas and assumptions, 5) City life, 6) Guilds, and 7) Eleanor of Aquitaine. Lesson Plan III includes sections 8) Religion, and 9) Feudalism compared to our system. We have tried to link the whole chapter together by relating each of the medieval institutions discussed to some of the basic ideas and fundamental assumptions of the time.

Although students are often told that it is important to study history and are even provided with some reasons for doing so, they are rarely given the opportunity to explore for themselves what history is, how they are involved in history and why it might be important to them. A Socratic discussion using questions such as the ones in our social studies introduction, could serve this purpose here.

In addition, critical thinkers need to understand how certain key assumptions and ideas gave rise to a variety of historical social institutions. Once understood, these ideas help tie together a great deal of information in meaningful ways. Without them, periods in history can seem like a hopeless jumble of data. Our primary focus in remodelling this lesson is to highlight the powerful ideas underlying the facts, their influence on almost every Medieval social institution, and their relationship to our own ideas.

Establishing historical perspectives

This lesson has a number of strong points. The discussion of historical time perspective with regard to the word 'modern' is one of the best we have seen. It extends the idea of perspective in labeling time periods to the term 'Middle Ages' as well. That is, they were not "middle" to those living at that time. The introductory remarks on the Middle Ages note the variety of the culture in time, place, and social position and imply that only a fragment of the whole picture will be examined in this lesson. This is an important understanding for students to have, since the critical thinker relates parts to the whole in an effort to integrate material being studied. The authors also do an excellent job of incorporating relevant and interesting anecdotal material, such as the origin of common family names in occupations or physical appearance, humorous episodes from William the Conqueror's life, daily life in a monastery, etc. There is a commendable effort to show aspects of Medieval life in both positive and negative light (life of the serfs, life in a city, Guild practices, broken promises, etc.) Nevertheless, the lesson could be improved by an explicit consideration of the concepts and ideas that gave rise to the peculiar social institutions and way of life characteristic of the Middle Ages. The text's emphasis is on the concrete, without a unifying framework to make sense of all the data. This is particularly important for students to have in this lesson since this period is so different from their own. Without this foundation students are likely to make hasty judgments and hold stereotypical views about the period. (Medieval practices are "weird," the Middle Ages were "dark ages.")

The next part of the critique, following the first remodel, will address the sections of the original relating to social structures.

Strategies Used to Remodel

S-19	engaging in Socratic discussion
S-13	raising and pursuing root questions

REMODELLED LESSON PLAN I

1) Introduction to the Middle Ages, terminology

Before students begin this lesson on the Middle Ages, you might consider devoting some time to a Socratic discussion of history itself in order to give students some idea of what they are about and why it is important. Of course, you will need to adapt the discussion to the needs and experience of your particular class, but we offer some suggestions for getting started. ***S-19*** "What is history? Is everything that happened part of history? Can everything that happened be put into a history book? Why not? If historians have to select some events to include and others to leave out, how do they do this? Is it likely that they will all agree? Is it possible for people observing and recording events to be biased or prejudiced? Could a historian be biased or prejudiced? How would you find out? If events, to be given meaning, have to be interpreted from some point of view, what is the point of view of the person who wrote our text? Do you have a history? Is there a way in which everyone develops an interpretation of the significant events in his own past life? If there is more than one point of view that events can be considered from, could you think of someone in your life who interprets your past in a way different from you? Does it make any difference how your past is interpreted? Etc."

We suggest that you then proceed as directed through the text's introduction. You might point out on p. 142 that the text is just summarizing important events and periods (Charles Martel's victory, Charlemagne's reign.) Much more information about these times is available, but the text authors have chosen to emphasize the later Middle Ages. Interested students could research these times, perhaps through biographies, and report to the rest of the class. The class could then compare early to late Middle Ages.

2) William the Conqueror

Next have students read the section about William the Conqueror. Then you might have them go back and refer to the text again to answer questions such as, "What words or phrases describe life at this time in Normandy? ***S-13*** (warlike, fierce, dangerous, uncertain, full of intrigue and conflict, etc.) In such times why would a strong leader be valued? What part of this account implies how important such a leader was to the people? When a king or noble died, who usually took over? (relatives) When would the question of inheritance most likely be disputed? (When there was more than one relative of equal rank wanting the power.) How did the system work? Why did William think he could rule England? What do you think might have happened if William had been killed? Was there another to take his place? Why not? How is this different from our system?"

Here you could explain that there are other reasons a leader such as William was so important in the Middle Ages. They have to do with the way society was organized and the basic ideas behind that organization. This will give students a sense of what you want to stress throughout the chapter.

Critique II

Looking for underlying social structure and foundational ideas

A discussion of rigid hierarchical social classes will not make a great deal of sense to students unless they understand the basic assumptions behind such a system, as well as the chaotic environment in which rigid structure was an appealing, safe haven. The warlike nature of the Middle Ages can be better understood as one explores the implications of having a permanent "warrior class." If one sees personal relationship between leader and followers (complicated by questions of inheritance) as central to life in the Middle Ages one can understand the betrayals and fragmentation of that society more clearly. We believe that these concepts can be taught in such a way that sixth graders will understand them. Studying history in this way will also help them to understand the dynamics of their own system and will demonstrate the power in examining the systems of thought underlying social structures. The lesson, however, expresses its goals in terms of behaviors which tend toward the superficial. (*"To give the meanings of modern and Middle Ages, to explain feudalism and to describe three ways of life during the Middle Ages: on the manor, in a city, and in a monastery or convent."*) The sections which 'explain feudalism' discuss only the mechanics of it, not its basic ideas, how people at the time saw it, or why they accepted it. *"Feudalism is that system which granted fiefs for the service of knights. It divided the power to govern among a number of nobles. Each lord ruled his vassals just as he was ruled in turn by his lord."* etc.) The analogy of feudalism with a triangle, (p.144) although a possible starting point, is too simplistic by itself to explain what was really going on. It shows the ideal but not always the facts. Students should be encouraged to critique this model rather than just accepting it. Although texts often rely on oversimplified analogies, critical thinkers should test them to ascertain their strengths and weaknesses. The final part of the critique, addressing the section on religion and review, follows the second remodel.

Strategies Used to Remodel

S-6	avoiding oversimplification
S-25	examining assumptions
S-30	exploring implications and consequences
S-13	raising and pursuing root questions
S-17	critiquing or clarifying text
S-20	practicing dialogical thinking
S-10	clarifying ideas
S-23	using critical vocabulary
S-7	transferring ideas to new contexts

REMODELLED LESSON PLAN II

3) Feudalism - basic structure

We suggest that you begin a discussion of feudalism by using the triangle image suggested in the text. You could point out that this was the ideal. If you choose to do so, you could tell students that when they finish reading and talking about this section you're going to ask them to revise the triangle image. You might want to have students read paragraph by paragraph, asking them to state key parts of the feudal system. In paragraph I, for example, note that land was acquired not with money, but by swearing loyalty. You could ask what this meant. (Promising a certain number of armed men with service to the king every year; not fighting for anyone else.) Emphasize that the oath was sworn to a person, not a nation or state. It could be useful to pursue the implications of this by asking, "What do you suppose happened if the leader died? ***S-6*** (obligations were off; people could swear loyalty to someone else; they may often have sworn loyalty to the leader's heir) Was the sense of obligation to the new leader the same as to the original person? What if the heir was a weak leader? What may people have been tempted to do?" You might point out the shifting of allegiance in the Middle Ages, owing to personal ability to attract and keep followers, degree of protection offered, amount of land given, etc. You might draw student attention to where the text alludes to this and have them expand on it, exploring assumptions and implications.

To deepen student understanding, you might explore the concept of 'promising' service. ***S-25*** "On what assumptions does this practice rest? (that your word will be kept; that there will probably be fighting; that those involved are better off in these relationships) What are the consequences if someone breaks a promise? ***S-6*** (no longer trusted; retaliation) If a vassal broke a promise to his lord, what do you suppose might have happened to the vassal? The lord? When might a vassal have wanted to break his promise? (when he couldn't keep it, when he thought he could make a better agreement elsewhere, when he wanted to take more power) When might lords have broken their promises? What might have happened as a result?"

Then, in order to explore the idea of fighting as an occupation, you could ask, "How did one get to be a knight in the Middle Ages? Was it easy or hard? Who could become knights? Why was it important for a knight to fight? (to get land/support, to fulfill promises, to keep skills sharp, win fame and glory) If knights' *"main purpose in life was fighting,"* what condition was a consistent part of medieval life? (war) ***S-30*** Interested students could do some research and construct their own time lines of all the wars in Western Europe between say, 1350 and 1450 to test the prediction. "How did wars then differ from now? (Discuss at length.) What did knights do when there wasn't a war to fight in? What generalizations can you make about having a warrior class?" (It exists for war, stimulates, encourages war, its identity is based on war)

The class can then discuss the important features of feudalism mentioned in paragagph 3. (Money was not exchanged, but land was distributed in exchange for service, an army was ready to fight whenever called upon, you had to agree to go to war in order to possess land.) Paragraph 4 illustrates how the system was extended to lesser vassals all down the line. Here you might simply ask why it was important to own land. Students could discuss the alternatives to land ownership.

As you continue with the section on feudalism, after the first paragraph, you could ask, "How were disputes settled in the Middle Ages? ***S-13*** How did the lord decide what judgment to make? Did law exist as it does now? What were the differences? Were judgments uniform in a country or language area? Do you understand another reason a lord was so powerful? (William the Conqueror) Why? What are the similarities and differences between being a leader now, and leaders then? Between good leaders now and then? What were the advantages of a system such as feudalism? The disadvantages? How did it meet the needs of the time? How is it different from the system we live under? What ideas did they have that we don't? What ideas do we have that they didn't?"

When students have read the next two paragraphs under Feudalism, you could ask, "What were some of the ways feudalism didn't work?" Then you might refer to the 'ideal' image of feudalism as a triangle of power and ask students how they might revise it. (A number of separate triangles or one big triangle with a number of smaller ones inside, some triangles over-lapping, etc.) "How is your design an improvement on the text's? Why did you make the changes you did?" ***S-17***

Next, as students read the sections from the text on manors and lives of the serfs, you could say something like, "We have spent quite a bit of time talking about those at the higher levels of the social scale, kings, nobles, and knights. Yet, these people represented only a small minority of the population in the Middle Ages. Why do you think we spend more time on them?" Here you could mention that very widespread illiteracy was characteristic of most past civilizations, by telling students that generally only the elite were educated and left records of their times. "How does this affect our understanding of these times? (It is most often through their eyes, from their perspective, and focuses on themselves and their peers.) ***S-30*** Where were serfs on the hierarchy? What does 'attached to the land' mean? If serfs were *'just like the trees in a manor's forest'* were their lives seen as being as valuable as, say, that of a Duke? Given their lowly status, what were serfs seen as good for? (labor) What words would describe what a serf was like from a noble's view? ***S-3*** (weak mind, simple, in need of guidance, not to be trusted or given authority, etc.) How might they have seen the nobles? How was a serf different from a slave? ***S-10*** (not bought and sold) How were they like slaves? Look at the names of some serfs in the text. To what do the names refer? (animals, physical appearance, personality traits, occupations) What were serfs identified with? For what were they valued? Do you think you could identify whether a person was a serf or a noble just from hearing his name? How?"

4) Feudalism - underlying ideas and implications

The next section is important because it explores some of the basic assumptions underlying feudalism and other social structures of the Middle Ages (most often ignored in elementary and intermediate textbooks.) It can also afford students the opportunity to engage in dialogical reasoning as they consider questions of social class from several points of view.

You might introduce this discussion by saying that an important thing to understand in any system is how it governs the relationship of one person to another. You might want to emphasize that social position in the Middle Ages almost always was determined by birth. "From what you've read thus far, how would you describe the relation of one person to another in feudalism?" ***S-13*** We advise that you introduce the term 'hierarchy' at this point, and have a student read a definition to the class. Others could rephrase the definition in their own words, or provide examples from their experience. Then you could ask, "What assumptions do you make about people when you organize them in a strict hierarchy such as feudalism? ***S-23*** Are they equal or unequal? In what ways? What conclusions did leaders in the Middle Ages draw from these assumptions? ***S-30*** (The strong should make decisions for the weak; the strong should protect the weak; the weak should serve the strong, etc.) Think about what this system implies in terms of how many could be at the top of the hierarchy (few.) The authority of the few was a natural corollary of their inherent superiority. The superior should govern the inferior. Who should be educated? Why? Who should dress well and have the best houses? Given these assumptions, why would it be important for people to be ranked, classed and labeled? (So they and others would know how to relate to each other; what rules apply.) What might be some ways of identifying a person's social class simply by meeting them? (clothing, manner of speech, knowledge of rules of society, surnames, etc.) How easy do you think it was to move from one social class to another? How could it have been done? Why would this question probably not have occurred to someone living in the Middle Ages? Why was it in the interest of the wealthy, high classes to keep their numbers small? (When resources are limited, adding more people means less for each individual.) Why would serfs accept their place? ***S-20*** What options did they have? What assumptions would they have made? What was more important to serfs than to people now? What ideas were less important?"

5) Cities

After students read the section on "Living in cities", you could ask, "What word does the author repeat in describing life in cities? (crowded) Do you think that a person raised in the city then would emphasize 'crowded'? ***S-3*** Remember that the period was warlike. What word might a person from the Middle Ages use to describe a city? (safe, protected, secure, efficient). Our perspective often affects how we judge something and causes us to notice things that are important to us rather than to the original party. Do you think the serfs or the townspeople were better off? Support your choice with good reasons. What might have been some advantages of living in the city as a tradesman? Some disadvantages?"

6) Guilds

Ask students to look at the picture representing Medieval guilds. What does the central figure remind you of? (king) What was the guild organization similar to? (political structure under feudalism) As you read the next section ask yourself how 'hierarchy' applies to guilds. ***S-7*** How is the guild structure different from that we discussed under feudalism? ***S-6*** (one could progress; apprenticeship was temporary) Why did guilds limit the number of apprentices? What's the problem with having *'too many people in their line of business?'* How did guilds limit members' freedom? How did guilds help their members? Why were guilds so powerful? What are the advantages and disadvantages of a monopoly?"

7) Eleanor of Aquitaine

To tie in the next section, "A strong-willed woman," you could emphasize the implications and complexities that marriage alliances created with regard to land, power and inheritance. ***S-6*** It might be helpful to point out that this was typical of Medieval noble families and created endless conflicts and disputes over claims to rightful ownership and control of territory. Since the Crusades are alluded to in this section, you could mention that they were extremely important in introducing changes to the Medieval way of life, but that they are not discussed in depth here.

Critique III

The role of religion - omissions

One of the most serious and puzzling omissions in the lesson is the role that religion, the Catholic Church, and religious ideas played in shaping almost every aspect of Medieval culture; basic assumptions about the purpose of human life and its relation to Deity, government, the calendar and holidays. As presented, religion is just another manifestation of daily life - a benign practice rather than a powerful set of ideas. The discussion of Bernard of Clairvaux, although interesting in its detail, lacks a context within which to understand his life. Although it hints that he was protesting corrupt practices, (*"He picked Citeaux because the monks there strictly followed the rules of a religious life. Bernard scorned those who took vows as monks but did not keep them strictly."*), it provides no background that would help students appreciate the significance of his life to the larger community.

The phrase, 'the Religious life,' is vague. (*"Christianity was very powerful and many people led religious lives."*) What did it mean to lead a religious life in the Middle Ages? The text merely gives a daily schedule. The claim that religion was powerful is never elucidated. This is confusing and gives the (correct) impression that important ideas are being left out. Among the more significant shortcomings is the stunning omission of the role of God in religion. The word 'God' is never mentioned in the student text. Without some concept of humans' relationship to God and the church there is no basis for understanding why one would ever choose a life such as Bernard's. Had these religious assumptions been made clear, secular institutions such as feudalism and guilds could have been understood as reflections of those fundamental ideas; the reasons for their acceptance made clear. To leave them out of a discussion of the Middle Ages is incomprehensible. Without them the Middle Ages cannot be adequately understood.

The one and one-half paragraphs devoted to the Crusades, another key development with far-reaching implications, is much too cursory, particularly when compared to the six paragraphs devoted to apprentices, though the textbook devotes more time to them in a later chapter. Again, without a grasp of fundamental ideas which organized life in the Middle Ages, it is hard to establish priorities for amount of coverage. The Checkup questions at the end of the chapter mirror the text's emphasis on nuts and bolts, rather than also exploring ideas and concepts which make sense of the many different aspects of Medieval life introduced in this lesson.

Strategies Used to Remodel

S-27	making plausible inferences
S-31	refining generalizations
S-7	transferring ideas to new contexts
S-20	practicing dialogical thought

REMODELLED LESSON PLAN III

8) The religious life

For the section entitled, "The religious life," you may want to do something similar to what was done for "Feudalism." It would be appropriate to tell students that religion was one of the most important aspects of life in the Middle Ages; that it affected every part of life, and that its *ideas* about the purpose of life, the relationship of God and humans, etc., really undergird the whole social structure, including feudalism. The text nowhere explains the meaning of "*Christianity was very powerful*" and 'a religious life.' If you have the background and resources it would be advisable to supplement the lesson in this area. If not, you could proceed with the life of Bernard of Clairvaux. You might ask students what implications they draw from the lines, "*He picked Cîteaux because the monks there strictly followed the rules of a religious life. Bernard scorned those who took vows as monks but did not keep them strictly.*" ***S-27*** (not all monks kept their vows) Why would this be important to him? Why would others not keep their vows? Does that mean that the life described in the text was the way all monks lived? ***S-31*** How is hierarchy manifest in the religious life? ***S-7*** (vows, obedience to superior authority) Whom was Bernard trying to serve? Why? What ideas were at the core of his life?

9) Comparison of feudalism to other systems

Throughout, you may wish to compare Medieval values, assumptions and practices with ours, and with other times and cultures. It is an excellent way of clarifying aspects of different systems, and encouraging students to look for basic, organizing ideas in any social structure, as well as providing a framework in which details will be better remembered. It also provides another opportunity for students to engage in dialogical thinking. The teacher could formalize this into a concluding activity where students are asked to explain the differences between feudalism's and capitalism's basic ideas, values and assumptions. ***S-20***

The highest development of intelligence and conscience creates a natural marriage between the two. Each is distinctly limited without the other. Each requires special attention in the light of the other.

7

Introduction to Remodelling Science Lessons

Although there are well-developed, defensible methods for settling many scientific questions, it is essential that educators recognize that students have developed their own ideas about the physical world. Merely presenting established methods to the student does not usually affect those beliefs; they continue to exist in an unarticulated and therefore unchallenged form. Jack Easley, the author of a series of penetrating articles on mathematics and science education, says, "cognitive research shows that young children develop and test alternative rational explanations which authoritative exposition can't displace."[1] Rather than transferring the knowledge they learn in school to new settings, students continue to use their pre-existing framework of knowledge. The child's own emerging egocentric conceptions about events in their immediate experience "are much more activated and real than any alternative conceptions fostered by classroom instruction or textbooks."[2] The *Proceedings of the International Seminar on Misconceptions in Science and Mathematics* gives an example of a child who was presented with evidence about current flow incompatible with the child's articulated beliefs. In response to the instructor's demonstration, the child replied, "Maybe that's the case here, but if you come home with me you'll see it's different there."[3] This child's response graphically illustrates one way in which students can retain their own beliefs while simply juxtaposing them with a new belief. Unless students practice expressing and defending their own beliefs, and listening critically to those of others, they will not critique their own beliefs and modify them in light of what they learn, a process essential for genuine understanding. "As children discover they have different solutions, different methods, different frameworks, and they try to convince each other, or at least to understand each other, they revise their understanding in many small but important ways."[4]

A critical approach to teaching science is concerned less with students accumulating undigested facts, than with students learning to think scientifically. As students learn to think scientifically they inevitably do organize and internalize "facts." But they learn them deeply, tied into ideas they have thought through, and hence do not have to "re-learn" them again and again. Education in science should combat the common assumption that "Only scientists can understand science."

Scientists are not given experiments; they begin with a problem or question, and have to figure out, through trial and error, how to solve it. Typical science texts, however, present the student with the finished products of science. These texts present information, and tell students how to conduct experiments. They have students sort things into given categories, rather than stimulating students to discover and assess their own categories. Texts require students to practice the skills of measuring, graphing, and counting, often for no reason but practice. Sometimes, the experiment or study is not obviously related to the question. The reasons for the design of experiments is often unclear.

Texts also introduce scientific concepts. But students must understand scientific concepts through ordinary language and ordinary concepts. Confusion arises when science concepts that have another meaning in ordinary language (e.g. 'work') are not distinguished in a way that highlights how purpose affects use of language. Students need to see that the different concepts are both 'correct,' for their different purposes. Furthermore, those texts which emphasize the distinction between observation and conclusion often fail to make the link between the two explicit. These faults can be overcome by a critical approach.

To learn from a science activity, students should understand its purpose. A critical approach to science education would allow students to ponder questions, propose solutions, and develop and conduct their own experiments. Although many of their experiments would not succeed, the attempt and failure provides a valuable learning experience. When an experiment designed by a student fails, that student should be stimulated to amend his beliefs.

A key point is this: scientific thinking is not a matter of running through a set of steps once (commonly called following *the* scientific method). Rather it is a kind of thinking in which we continually move back and forth between questions we ask about the world and experiments we devise to test out various possible ideas we have about it. We continually think in a hypothetical fashion: "If this idea of mine is true, then what will happen under these or those conditions? Let me see, suppose we try this.... What does this result tell me? Why did this happen? If *this* is why, then *that* should happen when I ...." We have to do a lot of critical thinking in the process, because we must ask clear and precise questions in order to devise experiments that can give us clear and precise answers. Typically the results of experiments - especially those devised by students - will be open to more than one interpretation. What one student thinks the experiment has shown is often different from what another student thinks the experiment has shown. Here then is another opportunity to try to get students to be clear and precise in what they are saying. Exactly how are these two different interpretations *different*? Do they agree at all? If so, where do they agree?

As part of the process of learning to think scientifically, clearly, and precisely, students need opportunities to transfer ideas to new contexts. This can be linked with the scientific goal of bringing different kinds of phenomena under one scientific law, and the process of clarifying our thinking through analogies. Students should seek connections, and assess explanations and models.

Finally, because science is much more monological than social studies, if students ever become scientists, they will have to learn how to think within a highly specific and tightly interwoven set of concepts (the conceptual frameworks of biology, chemistry, physics, etc.). Nevertheless, students should learn to do their own thinking about 'scientific' questions from the beginning. Once students 'give up' on trying to do their own scientific thinking and start passively taking in what their science textbooks tell them, the 'spirit' of science, the scientific attitude and frame of mind, is lost. Never forget the importance of "I can figure this out for myself! I can find some way to *test* this!" as an essential scientific stance for students in relationship to how they think about themselves as *knowers*. If they reach the point of believing that knowledge is something in books that other people smarter than them figure out, then they have lost the fundamental drive that ultimately distinguishes the educated from the uneducated person. Unfortunately this shift commonly occurs in the thinking of most students some time during elementary schooling. We need to teach science, and indeed all subjects, in such a way that this shift never occurs, so that the drive to figure out things for oneself does not die, but is continually fed and supported.

Whenever possible, therefore, students should be encouraged to express their ideas and try to convince each other to adopt them. Having to listen to their fellow students' ideas, to take those ideas seriously, and to try to find ways to test those ideas with observations and experiments, is crucial. Having to listen to their fellow students' objections will facilitate the process of self critique in a more fruitful way than if they are corrected by the teacher who is typically taken as an absolute authority on 'textbook' matters. Discussion with peers should be used to make reasoning from observation to conclusion explicit, help students learn how to state their own assumptions and to recognize the assumptions of others.

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[1] *Jack Easley, "A Teacher Educator's Perspective on Students' and Teachers' Schemes: Or Teaching by Listening," Presented at the Conference on Thinking, Harvard Graduate School of Education, August, 1984, p. 1*

[2] *Richard Paul, "Dialogical Thinking: Critical Thought Essential to the Acquisition of Rational Knowledge and Passions," Teaching Thinking Skills: Theory and Practice, by W. H. Freeman & Company, Publisher, Joan Baron and Robert Steinberg, editors, 1987.*

[3] *Hugh Helm & Joseph D. Novak, "A Framework for Conceptual Change with Special Reference to Misconceptions," presented at the International Seminar on Misconceptions in Science and Mathematics, Cornell University, Ithaca, NY, June 20-22, 1983, p.3.*

[4] *Easley, op. cit. p.8.*

Cool It

(Science - 4th Grade)

Objectives of the Remodelled Plan

The students will:

- develop experiments to settle the question, "Does water cool at different rates in different containers?"
- discover related questions their experiments do not answer
- clarify these remaining questions
- practice using the critical vocabulary: inference, conclusion, evidence, and relevance
- distinguish relevant from irrelevant information to the problem
- make inferences from their experiments and evaluate them

ORIGINAL LESSON PLAN

Abstract

This lesson asks, *"In which container (tin can or styrofoam cup) will the hot water retain its heat longer? Why?"* Students pour equal amounts of water at the same temperature into the containers. They record the highest temperatures, and the temperature every minute for fifteen minutes. They make line graphs, individually and together. Under discussion topics, teachers are asked to *"Encourage the students to draw conclusions about the relationship between the time it took the water to cool in one container compared to the other container."* The extension suggests that students could test several kinds of containers.

from *Introductory Investigations* Arthur Wiebe and Larry Ecklund editors. Fresno Pacific College Project Aims p. 10

Critique

This lesson presents an experiment, rather than presenting a question and allowing students to design experiments, thereby failing to encourage students to engage in scientific reasoning. It also unnecessarily limits the containers used. Allowing students to propose and test different containers would help them broaden their understanding of which materials conduct heat and which insulate. Using merely two materials prevents students from fruitfully attempting to make generalizations about insulation.

The lesson presents another opportunity for practicing critical thinking micro-skills by using critical vocabulary, distinguishing relevant from irrelevant evidence, making and evaluating inferences. Furthermore, students could consider cold water remaining cold, and explore practical applications of insulation, thus applying the key concept to other situations (buildings, clothes, atmosphere).

Strategies Used to Remodel

S-17	clarifying or critiquing text
S-1	exercising independent thought
S-9	clarifying issues and claims
S-15	generating and assessing solutions
S-13	raising and pursuing root questions
S-23	using critical vocabulary
S-6	avoiding oversimplification
S-30	exploring implications and consequences

REMODELLED LESSON PLAN

A minor remodel of this lesson, would be to present the teachers' text to students, and have them explain why they are given those instructions. *S-17* (Why does the temperature of the water have to be the same when the experiment starts? Etc.) Thus, students could begin to develop for themselves, a sense of how to design a controlled test. The discussion could be reviewed when students are later asked to design other experiments.

Instead of setting up the experiment for students, engage them in a discussion of hot water cooling. *S-1* You might ask, "What happens when water cools? Where does the heat go? How fast does hot water cool off? What affects the rate at which water cools off?" The teacher could split the class into groups to explore other questions, or inform students that they will study how different containers affect heat retention.

To help students design experiments, use questions like the following: *S-1* How can we find out what materials best retain heat? What kinds of containers should we test? What aspects of the containers might affect cooling rate? (size, shape, material, thickness) How can we test each aspect? *S-9* What units of measurement should we use? How can we make sure that the results are due *only* to what we are testing, and not influenced by other things? What, besides the container, could affect the cooling rate, or our measurements? How can we prevent each of these things from affecting our results? *S-15* What will we have to do?

This discussion could also be used an an opportunity to teach the scientific method of hypothesis, controlled testing, observation, and inference, by providing these words during or after discussion. (All water should begin at the same temperature and containers should sit in the same temperature. If testing for shape, use two shapes of the same size and material; if testing for material, use two different materials, of the same size and shape.)

Students could also themselves and decide on good ways to record, organize and report their observations, though charts, graphs, or tables. *S-1* (What information will we need to record? How can you organize the results and present them clearly? What headings will you need? etc.) Students could find cooling rates, or simply the time it took the water to reach room temperature. Students need to record time, beginning and ending temperatures, describe each container - its size, shape, and what it's made of. Students could also engage in qualitative observation by periodically feeling the outsides of the different containers. This data could be helpful to students when discussing the implications of their findings.

When students have conducted their experiments, ask them what they observed, and what they conclude or infer. Have them explain their answers and reasoning as fully as possible. Extend discussion using questions like the following: What differences did you find between the containers? Why, do you think, did you find those differences? What about the containers could account for those differences? ***S-13*** What containers gave similar results? Why? The teacher could rephrase student responses using critical vocabulary, and encourage students to use such vocabulary as, observe, infer, evidence, relevant, conclusion, assume. ***S-23***

The teacher could extend this lesson by having students design and conduct experiments to test new ideas they expressed in the above discussion. Thus, students develop a clearer, more complete and less stereotyped idea of what scientists do. ***S-6*** Or students could merely pose and clarify unanswered questions. Perhaps interested students could conduct further tests, and keep the rest of the class posted.

The class could then explore the importance of their experiments and findings in the directions of either science or practical application. To pursue the latter, consider asking the following questions: ***S-30*** When is it useful to know what materials (shapes, sizes, etc.) hold heat? Let heat escape? ('Insulate' could be introduced, if not done before.) When do people need to know what materials insulate or conduct heat? Why? What other things do people keep in mind when choosing insulators or heat conductors? What other factors are relevant? (For example, why don't we wear styrofoam clothes to keep us warm?) Can you think of ways that nature insulates? How do those examples relate to your experiments? Are natural ways like any of the materials you tested? Which? How? How are they unlike?

Students could summarize their results by completing such sentences as, "Heat travels more quickly through materials that are .... Heat travels more slowly through materials that are ...." and write brief explanations why.

There is no one 'right' remodel. Many different improvements are possible.

Magnets

(Science - 4th Grade)

Objectives of the Remodelled Plan

The students will:

- explore and clarify 'magnetism' through play and structured activities
- transfer the idea of a magnet to their understanding of the Earth

ORIGINAL LESSON PLAN

Abstract

The article containing the following suggestions emphasizes the importance of students' "playing" with magnets before the formal lesson begins. The author then suggests that: students be given a variety of objects to test for attraction to magnets; that students distinguish metals that are attracted from those that aren't; that students devise tests which determine relative strengths of magnets; that students make magnets; and that students use magnets to find objects buried in sand.

from *Learning Magazine* Vol 15, #7 "Science - Discover the Wonder," by G. Douglas Paul pp. 44-45

Critique

The first, third and fourth activities, as well as the introduction, encourage independent thought. It is unclear, however, whether or not students are to discuss their findings. The lesson does nothing to put the concept of magnetism into the larger picture of science. It misses the chance to discuss the purpose and applications of the object of study. Ships and airplanes use compasses, which rely on magnetism, to navigate. Magnetism is an important idea in astronomy.

Strategies Used to Remodel

S-1	exercising independent thought
S-7	transferring ideas to new contexts
S-18	making interdisciplinary connections

REMODELLED LESSON PLAN

This lesson could start with a discussion to find out what students already know about magnetism and its uses. Instead of giving students objects to test, students should be able to decide what to test and how to determine the attraction to the magnet. *S-1* This lesson does a good job when it transfers learning to the situation of making magnets, but it would do well to make this transfer explicit by asking students what more they have learned from making magnets, instead of studying those already made.

Discuss a compass with students, explaining what it is used for. Let students play with compasses, or make them, and see how the magnet affects them. *S-7* "Why does the compass needle usually point one way? Why does your magnet change that? What does that tell us about the Earth?" Students could be asked to describe or sketch the shapes of the magnetic field as discovered by noting where magnets attract and repel each other. They could look up drawings of the magnetic field around the Earth and compare the two.

As an extension exercise, students could discuss why we use the expression 'magnetic personality' and what it means. *S-18* The teacher could lead a discussion where the children try to puzzle this out.

Finally, this lesson can be wrapped up by asking students to review what they have learned. They should be able to state what they now know and what they are uncertain of in the area of magnetism. "What kind of 'thing' is magnetism? Can we sense it? How do we know it's there? What do we know about it? What questions do you have about magnets and magnetism?"

It should not be assumed that there is a universal standard for how fast teachers should proceed with the task of remodelling their lesson plans. A slow but steady evolutionary process is much more desirable than a rush job across the board.

Polar Ice Caps Melt

(Science 4th Grade)

Objectives of the Remodelled Plan

The students will:

- design a model of a shore, to explore the consequences of the melting of the polar ice caps
- compare each others' observations
- evaluate their models

ORIGINAL LESSON PLAN

Abstract

This lesson focuses on the question, *"If the polar ice caps melt, what would happen to the rest of the world?"* Students put sand, water, and a large chunk of ice in a large pan, and record periodic observations while the ice melts. They discuss the following questions: *In what way is the model similar to what happens on Earth? What kinds of errors occur when any model is used?*

from *Down to Earth* Arthur Wiebe, Sheryl Mercier,
and Larry Ecklund editors. Fresno Pacific College,
Project Aims. ©1984 p. 14

Critique

This lesson provides an opportunity for model design and assessment, distinguishing relevant from irrelevant differences, differences in style of observations, and an exploration of the chain of cause and effect.

Strategies Used to Remodel

S-1	exercising independent thought
S-30	exploring implications and consequences
S-7	transferring ideas to new contexts
S-13	raising and pursuing root questions

REMODELLED LESSON PLAN

You could begin by asking students what they think would happen if the polar ice caps melted. Guide them in designing a model to answer the question, with questions like the following: How could we find out, without it actually happening? What could we do? Why? What could we use? Why? *S-1*

During the course of the study, have students write down their observations (and times at which they made them.) A student could put the observations in chronological order. The class could discuss their observations, and what they imply: What has happened? What did different students find? How can we compare these notes? (The class could use the notes to make a composite description, which would probably be more complete than that of any single student. Students could discuss differences between observations near the same time. Students could delete irrelevant observations.) How is our model like the what the real situation would be? Unlike it? What does that tell us about what would happen if the ice caps really melted? Follow up responses to elicit further effects. *S-30* (Then what? What effect would *that* have?) Students could discuss affects on land, climate, people, and other forms of life. The class could also discuss the question: What would happen if the ice caps grew? (Discuss at length.) *S-7*

The teacher could supplement the discussion of the worth of the model, with questions like the following: *S-13* Why did we have to make a model to explore this question? In what ways was the model different from Earth? Which of these differences are relevant to our key question? How useful was the model? What might we have done, if we had the time and resources, to make the model more accurate? Why would that have been better? Do we need to have done that, or can we draw conclusions from our model?

If students know about the ice ages, they could be brought into the discussion of this lesson. *S-7* Students may be able to speculate about how scientists know the ice caps have changed sizes.

When the powerful tools of critical thinking are used merely at the service of egocentrism, sociocentrism, or ethnocentrism, then genuine communication and discussion end, and people relate to one another in fundamentally manipulative, even if intellectual, ways.

What's in the Bag

(Science - 4th Grade)

Objectives of the Remodelled Plan

The students will:

- design a study to discover the percentage of each color of M&Ms in their samples
- speculate on reasons for their findings
- make interdisciplinary connections between studies done to settle different kinds of questions
- clarify the concept 'science'

ORIGINAL LESSON PLAN

Abstract

This lesson focuses on the question, *"Does the M&M Company package according to a systematic plan?"* Groups of students count candies in sample bags, find the mean, count by color, figure percentages and totals, and graph their results. The class then discusses the key question. One discussion question asks students how their data supports or refutes the key idea.

from *Introductory Investigations* Fresno Pacific College - Project Aims. Arthur Wiebe, Larry Ecklund editors. ©1982. p.21

Critique

Although this lesson might be abandoned as "trivial," we decided to remodel it, as an example of what might be done with such a lesson. Although the subject matter of the lesson is not within the domain of science, nonetheless, its technique can be used to illustrate a common form of empirical study. After that, the lesson can be used as a springboard for discussing the meaning of the term 'science.'

Strategies Used to Remodel

S-1	exercising independent thought
S-27	making plausible inferences
S-10	clarifying ideas
S-18	making interdisciplinary connections
S-7	transferring ideas to new contexts

REMODELLED LESSON PLAN

In this lesson, as in general, guide the students in study design, rather than offering the prepackaged plan. The teacher could ask the key question and let students work out how to settle it. ***S-1*** "What would we find if the bags are filled systematically? Randomly? What data are we looking for? What do we have to record? What should we do with the numbers we find?" The teacher could also have students graph their results after explaining what kind of graph they think they should make, and how it should be labeled.

When students have conducted their studies (and eaten the evidence), the teacher could ask for their findings, and lead a discussion with the question in the original lesson, supplemented with questions like the following: What, do you think, accounts for your findings? Why did you find the numbers of colors that you found? How do you think the candies are packaged? ***S-27*** Why? Why do you think so? What could account for there being more of these colors, and fewer of those? What do we know about businesses that provides a clue? Students could also discuss the assumption that their total sample was representative.

Another general technique that suits this lesson is looking beyond the trivial information the children are asked to find, to explore possible connections to more serious studies. Ask students whether or not this lesson is science and why. ***S-10*** If not, what subject is it? ***S-18*** What resemblance does it bear to science? When are other subjects like science? What technique was used? When, in science, would a similar technique be used? ***S-7*** To settle what questions? (numbers and types of creatures in an area, chemicals in water samples, etc.) When, in other subjects would a similar technique be used? (opinion polls) How is this like science? Unlike? Are the similarities crucial? The differences? Why do this lesson?

The critique should inform the remodel; the remodel should arise out of the critique.

Rubber Bands

(Science - 5th Grade)

Objectives of the Remodelled Plan

The students will:

- engage in Socratic discussion about their observations of and speculations about rubber bands
- design and conduct tests about how much different rubber bands stretch and how far they shoot, thus exercising independent thought
- clarify the idea, 'stretch,'

ORIGINAL LESSON PLAN

The first lesson, "Rubber Band Stretch," focuses on the key question, *"How much does a rubber band stretch?"* Students suspend paper cups from different kinds of rubber bands attached to boards by means of tape and paper clips. They add pennies to the cups and measure how much the different rubber bands stretch. They graph their data, and develop a formula relating stretch to mass. The extension has students compare rubber bands of different characteristics.

The second lesson, "Rubber Band Shoot," has students discuss the key question, *"How does a rubber band shoot?"* Students then stretch the rubber bands measured amounts, and let go. They graph their data and discuss the results. In the extensions, students compare the behavior of different rubber bands, and devise a formula combining stretch and shoot formulas.

from *Introductory Investigations* Fresno Pacific College - Project Aims. Arthur Wiebe and Larry Ecklund editors. pp. 33-35

Critique

These lessons offer a number of exciting opportunities. Both lessons, however, put too much emphasis on measuring and recording. Students could make fuller observations, and begin to develop a sense of what goes on when rubber bands stretch, and discuss the relationship of stretch to shoot qualitatively.

Rubber Band Stretch is unnecessarily confusing. Mass doesn't make rubber bands stretch, force does. Students should understand more clearly the reason for the design of this experiment. As given, the purpose of the test design is unclear. Nor does either lesson ask students to consider any application of what they have learned. No attempt is made to tie the information to other objects. Discussions of muscles, elastic, gum, and other stretchy things belong in this unit.

Rubber Band Shoot does not answer the question it purports to. It asks, *"How does a rubber band shoot?"* It succeeds in answering how *far* a rubber band shoots, and therefore confuses two distinct and very different questions.

Strategies Used to Remodel

S-19	engaging in Socratic discussion
S-10	clarifying ideas
S-24	distinguishing ideas
S-1	exercising independent thought
S-6	avoiding oversimplification
S-7	transferring ideas to new contexts
S-31	refining generalizations
S-11	developing criteria for evaluation
S-17	critiquing text

REMODELLED LESSON PLAN

Before beginning study of rubber bands, the teacher may want to lead students in a discussion regarding safety. Students could mention possible dangers, and the best ways of avoiding them. We suggest an introductory lesson, since children love to play with rubber bands. This first lesson should be a chance for the children to manipulate and share observations about rubber bands. Record their ideas on the board and save them.

To begin the science unit, remind the class of their rubber band play. Ask them if they remember any of the ideas they mentioned. Discussion could be extended with questions like the following: ***S-19*** What did you notice about rubber bands? (When necessary, elicit clarification.) What kind of rubber band was it? What, exactly, did you do? How did it look? Feel? Sound? Which of these things you found, could we measure? (Some students may want to explore ideas other than amount of stretch.) What differences did you find between rubber bands? Do you think the differences were related? How? Why?

The class could discuss the idea of stretch and clarify it. ***S-10*** What is stretch? What kind of thing is stretch? What things stretch? How are all of these things alike? Different? Are there different kinds of stretch? ***S-24*** How could we measure stretch? What might affect the measurements? What characteristics of rubber bands affect the amount of stretch? What kinds of rubber bands stretch the most? The least? How could we find out?

Then the teacher could ask students if they can think of ways we measure things. Ask what kind of thing is measured by each. Students could choose questions to investigate. Students could then discuss which type of measurement would work for their investigations. What, exactly, should we measure? How? What do we need to record? How? Why?”

At this point, the teacher could have students split into groups to design and conduct tests. ***S-1*** The tests could then be discussed and evaluated. Students could then suggest and assess solutions to any problems they had conducting or interpreting their tests. (For example, if students stretched a large and a small rubber band and simply measured the lengths, they wouldn't be able to distinguish later how much of the difference was due to stretch. Or different students may have gotten vastly different results, due to different amounts of force applied.) Such an experience would graphically illustrate the requirements of a well thought-out experiment.

Or, the teacher could elicit design of a test similar to that in the book. “To stretch a rubber band, you need a force. To make accurate measurements, you need a way to control the force, so that results are due only to differences in the rubber bands, not to differences in force. ***S-6*** What force can we use? If we pull, how can we be sure results won't vary because of different amounts of pull? We can't control or measure how much pull we use. Etc." The teacher may want to have a wider variety of materials available than those mentioned in the original lesson.

Students could also decide on a reasonable method of presenting the data. ***S-1*** Some may also demonstrate or reproduce their experiments, and compare the results.

Students could write a paper describing their question, experiments, hypotheses, data, observations, inferences, assumptions and conclusions.

Ask if this experiment suggests any important issues or questions and how we might go about settling them. They might think of ways to apply what they've learned about stretch. The teacher could bring out the list of stretchy things made earlier in the lesson, and have students discuss the items in terms of what they learned about rubber bands. ***S-7*** They could elucidate similarities to and differences from rubber bands and try to predict the effects the differences might have in a similar study. ***S-31*** "What does it imply about muscles and exercises, fitted sheets, pants with elastic waist and pennies in the pockets?"

For the second lesson, you could ask students to share their questions about rubber band shooting. Each group/person selects one or more related questions and designs an experiment or study. If you provide materials and guidance you will have many interesting studies. Have students solve the questions of safety. Each study needs to address shooting method, means of observation, means of recording and presenting data. ***S-11***

Ask students to read the original lesson, and to do what they are asked in the lesson. Ask them the question, "*How does a rubber band shoot?*" If they answer with distances, ask them to consider their answer and decide what question they are really answering. They should see, or you can point out, that these distances answer "How *far* " not "*how*" rubber bands shoot. ***S-17***

Discuss the relationship of stretch to shoot. "Were the stretchiest the best shooters? Worst? Neither? Why do you think so? What were the best stretchers/shooters like?" It is interesting the concept developed and measured in the first study became a variable in the second.

Weather

(Science - 5th Grade)

Objectives of the Remodelled Plan

The students will:

- infer how surface temperature affects air temperature
- exercise independent thought by organizing their data on weather, and answering essay questions

ORIGINAL LESSON PLAN

Abstract

The students text is divided into the following sections: How Weather Begins; Air Pressure and Winds; Air Masses and Weather; When Air Masses Meet; Clouds.

"Changes in the Weather" introduces the chapter and defines weather and atmosphere. It explains that students will learn what causes weather and why weather changes.

"How Weather Begins" discusses solar energy and its relationship to Earth's weather. This section explains how the warmth of the sun heats the atmosphere unevenly. One of the reasons for this is illustrated by an experiment in which students predict and observe which materials heat the most and least, and which lost heat the quickest and slowest. Another activity has the teacher shine a flashlight straight onto paper, then at an angle. Students compare the areas. The text relates the demonstration to the difference between summer and winter sunlight.

"Air Pressure and Winds" explains the idea of air pressure, what affects it, and what causes local and global winds. "Air Mass and Weather" describes air masses and influences on them.

"When Air Masses Meet" defines a front, describes the kinds of weather found at different fronts, and the kinds of clouds that accompany them. Students are asked to observe temperature, pressure, clouds, and precipitation every day for one week, and answer questions. The last section, "Clouds," describes different kinds of clouds and how they form.

"Understanding Ideas" has students look at three pictures (island, desert, icebergs). Students are asked what kind of air mass would form over each, and what would happen if two moved together. Lastly, "Using Ideas" claims that the moon has no atmosphere and therefore no weather, and asks students to defend the claim.

from *Silver Burdett 5th Grade* by George G. Mallinson, Jacqueline Mallinson, William L. Smallwood, Catherine Valentino. ©1985 pp. 258-281

Critique

While the text of this chapter is fairly strong, the suggestions for teacher presentation of the material is quite weak. The text is strong in that it integrates the various sections, relates them to one another, and concepts are enriched and expanded with each succeeding section. Another strength of the chapter lies in the illustrations offered by the two activities. Finally, the text, along with the teachers notes offers a variety of approaches to each section's concepts.

There are, however, several important weaknesses that need to be addressed. Much of what passes as 'inferring,' in the text, is actually merely restating the surface content of the reading. The activity charts are given and thus the chapter loses the opportunity to encourage independent thinking, the motivation and enrichment activities could be better designed, and the Chapter Review does not test any substantial thinking skills or an adequate depth of content comprehension.

The text confuses inferring and concluding, with remembering and sensing. Examples of this problem occur on teachers' notes on pp. 260, 268, 227, when students are asked to infer, conclude or figure out facts just mentioned in the text or described by students. For example, after discussing experiences of walking barefoot on hot and cool surfaces, students are to *conclude* that some of the surfaces were cooler than others. When you step from a hot surface to a cool one, you *sense* the latter is cooler; you do not conclude it.

In the activities or experiments, charts are given and students are to observe and record data. Students then come to conclusions about weather conditions and their attributes. An important scientific skill is the ability to organize and present data, therefore, having students design their own charts would provide a valuable opportunity.

The motivation exercise in the teachers' notes on p. 260, about walking barefoot, is not terrribly motivating and is a poor introduction to the text. Although is *does* illustrate that some surface areas are warmer than others, it would not engage students in the way the experiment for this idea does. This activity is a hands-on illustration of the preceding text and thus more dynamic than the proposed motivation. Even if this option is not exercised, a more exciting motivation scenario could be explored.

The chapter review mainly limits itself to questions that require one word vocabulary answers or short, fairly surface responses. In the section called "Using Ideas," the first question regarding the moon states that the moon has no atmosphere, thus no weather, and asks students to explain why. This infers for the students and does not begin to plumb the depths of the students' understanding. Similarly, the second question gives a fact and asks for an explanation, rather than setting the stage for prediction, inference and supporting information. These types of questions do not test any substantial critical thinking skills, nor really indicate the level of the students' understanding.

Strategies Used to Remodel

S-27	making plausible inferences
S-18	making interdisciplinary connections
S-1	exercising independent thought
S-28	supplying evidence for a conclusion
S-30	exploring implications and consequences

REMODELLED LESSON PLAN

Rather than opening the chapter with a questionable inference (that palm trees imply tropical places), it would be better to ask students what weather is and what they know about it. You could substitute the experiment on how heat affects different surfaces for the "motivation," and ask students what surface temperatures might have to do with weather. How is surface temperature related to air temperature? *S-27*

The enrichment suggestion on p. 261 (wherein the teacher is supposed to demonstrate that light shown at an angle covers more area, and thus provides less energy per unit of space), falls short of fully illustrating the concept. The reasoning behind the enrichment activity for the different angles of sunlight could be made more explicit by eliciting or explaining that when the same amount of energy hits a small vs. large area, the amount of energy per unit of area is greater. Here, students could be reminded of work with fractions. Write a fraction on the board, labeling the numerator 'amount of energy' and the denominator 'area.' Write a second fraction, labeled the same, but with a larger denominator. Thus, students can understand the idea mathematically, as well as verbally. *S-18* Ask students if they can design other models to illustrate this concept. *S-1* If they do not suggest any, suggest a few yourself (both adequate and inadequate) to check on their understanding of the concept. For each model, ask if it does indeed show how the angle of sunlight affects the intensity of heat. Probe their answers; insist they not only answer but explain why or why not. *S-28* (They may need two models, one for "Energy which arrives at an angle, covers more space," another for "The same energy hitting more area provides less energy per area.")

Both activities (264 and 275), as well as "Finding out" on p. 277, give ready-made charts for students to fill in. Since this misses the chance to encourage independent thinking, try allowing students to pose questions, collect data, and consider ways to record, organize and present data by way of charts or graphs. *S-1* Remind them that the conclusions they wish to draw can guide their design.

Finally, the chapter review can be remodelled by rewording the "Using Ideas" section and adding one or more essay questions. Question 1 might point out that the moon has no (little) atmosphere and ask what this implies for its weather. *S-27* Ask students to explain their answers fully, pointing to facts in the text to support their claims. *S-28* Question 2 could be addressed in a similar fashion. Possible essay questions might be, "Describe an area on Earth and the weather patterns it has. Be sure to show why that area would have that particular weather pattern. Explain the possible variations in that pattern and what conditions would precede and bring about different kinds of weather." *S-30* or, "Explain why the Earth has seasons, illustrate underlying principles with examples."

Corny Comparison

(Science - 5th Grade)

Objectives of the Remodelled Plan

The students will:

- examine different kinds of corn
- in a Socratic discussion, consider why popcorn pops
- design and conduct a test to discover ratios of popped to unpopped popcorn

ORIGINAL LESSON PLAN

Abstract

This lesson focuses on the key question, *"How much will the volume of popcorn expand when it is popped?"* Students make their predictions, and divide into groups. Each group pops its sample (one of two different brands, one of several amounts) and calculates the ratios of popped to unpopped corn. Three of the six discussion questions focus on evaluating between the two brands. The extensions suggest various cost calculations.

from *Introductory Investigations* Arthur Wiebe and Larry Ecklund editors. Fresno Pacific College Project Aims p. 12

Critique

The major weaknesses of this lesson are its failure to provide a place for independent thought and its stopping at the trivial level of measurement and data recording. Students should design their studies, and *consider* popcorn. Discussion of how cooking affects food, differences within species, and related questions and areas of exploration would tie this lesson more firmly to science.

Strategies Used to Remodel

S-1	exercising independent thought
S-19	engaging in Socratic discussion
S-6	avoiding oversimplification

REMODELLED LESSON PLAN

Rather than giving students an experiment to perform, you could begin by asking them to describe what happens to popcorn when it is popped. *S-1* Someone will use the concept of expanding or exploding. You could also ask, "What makes the 'pop' sound? Why do you think that explains the sound? What is inside an unpopped kernel? Why do you think so? What does popped corn look like?" Eventually someone may say that the popcorn turns inside out. You may want to have some popped corn and a corn cob available for students to look at and take apart.

Then, attention can be turned to the notion of expansion. ***S-19*** "What is it that makes the inside get so big? Is that related to the 'pop?' Why is the inside of steamed or boiled corn wet and compact, and the same stuff on the outside of popped corn is dry and fluffy? What kinds of cooking power are there? (Dry heat, hot water, direct flame, microwave.) What kinds are used to cook corn on the cob, corn kernels, popcorn? Does this account for the differences? Why doesn't corn on the cob pop? Why isn't steamed popcorn like corn on the cob?" Students could read the labels regarding age and storage instructions, speculate about reasons for those instructions, consequences of ignoring them, and what those consequences imply about why popcorn pops.

You may then want to focus attention on amount of expansion. Rather than presenting the experiment in the book, help students to design their own experiments. ***S-1*** A broader range of experiments could be devised if slightly damp and old popcorn is also available for comparison. You could use questions like the following: How can we find out how much bigger the popped corn is than unpopped? What might affect the size of popped corn? How could we test for these effects? What, besides the things we're testing for, could affect the results? ***S-6*** How do we prevent that from happening? If necessary, lead them to see that, if comparing two characteristics, everything else has to be the same. Students might also weigh and compare unpopped and popped popcorn.

When students have conducted their experiments and recorded (and eaten) the results, they could speculate on what their findings mean, and why they got the results they did. ***S-1***

If what we do in a remodel is unclear, review the critique and strategies for guidance.

Ah Chute

(Science - 5th Grade)

Objectives of the Remodelled Plan

The students will:

- design and test parachutes
- discuss characteristics which affect the descent rates of parachutes
- transfer insights about parachutes to any falling objects
- hypothesize, test, and refine their hypotheses regarding the descent rates of objects

ORIGINAL LESSON PLAN

Abstract

This lesson focusses on the key question, *"What is the rate of descent of your parachute?"* Students design, build, and test parachutes (twice each from three different heights), calculating the rates of descent in meters per second. They then discuss the following questions: *What things affect the rate of descent? Did the rate of your chute change from one height to another? Why? Select the five slowest rates of descent and the five fastest from the class chart. Have those students display and describe their parachutes. Were there similarities? What can you conclude? How would you modify your parachute to improve its performance?*

from *The Sky's the Limit* Arthur Wiebe and Larry Ecklund editors. Fresno Pacific College. Project Aims. ©1982 p. 13

Critique

A major weakness of this lesson is its failure to connect why a parachute works to falling objects in general. It misses the opportunity to teach important science concepts such as gravity, wind resistance, and inertia. This trivializes the lesson by restricting it to measuring and recording data.

This lesson offers the opportunity to have students engage in extended scientific reasoning - posing questions, testing answers, posing new questions, conducting further tests, all the while, assessing their original ideas and refining their initial generalizations. Headway can be made on the broadened topic without extended preparation, no measurements, and little recording of data.

Strategies Used to Remodel

S-10	clarifying ideas
S-15	generating or assessing solutions
S-1	exercising independent thought

S-7 transferring ideas to new contexts
S-31 refining generalizations

REMODELLED LESSON PLAN

Begin by asking if anyone knows what a parachute is and what it is for. They should know that a parachute is designed to keep something from falling too quickly, that is, that it slows the rate of descent. Rather then using the key question in the text, focus attention on the discussion question of what affects rate of descent. Ask students what characteristics make a good parachute, and how they know. ***S-10*** Ask them to think of situations which call for using a parachute. ***S-15*** Ask if there are any other possible solutions for these problems. Have them consider questions like these, "What affects the rate of descent of a parachute? How could we find out? How does a parachute work? Why does it work?"

Students could then design their tests, as well as their parachutes. ***S-1*** Perhaps they could try to make appropriate parachutes for various specific purposes or objects. Students may repeat their tests on different days and/or in different places (windy vs. protected) and compare results. As in the original, have them compare slow with fast parachutes, and speculate on which differences affected the descent rate. They could compare parachutes of different materials, and carrying different weights and shapes. Ask them, "What does this tell us? About air? Gravity? Objects? Why did we get the results we did? Why does the parachute fall slowly?" Students could then begin making generalizations and hypotheses, and designing experiments to test them.

You could then broaden the original question to, "What affects the rate of fall of objects, and why?" ***S-7*** Students could practice making and refining generalizations. ***S-31*** Suggest that they experiment with other kinds of falling objects, i.e., paper planes, feathers, books, rocks, pillows, etc. Students need not measure, they could simply group objects in general categories of fast-falling, slow-falling, and in-between-speeds. After each test or each few tests, discuss results. "What were you testing for? (To see if weight, size, density, etc. affect fall rate.) What did you do? (Dropped this and that from the same height at the same time and place.) Why? (If what we tested for affects fall rate, since they're the same in every way but this, then this should have fallen much more slowly than that.) What happened? (This fell much more slowly that that.) What does that mean? Could there be another explanation? Were there other differences between the two objects that could have accounted for the results? How do these latest finding compare with our earlier tests? What other questions could be asked? Is there anything else that you noticed, that would explain the results? What else could you test for? Now what would you say affects descent rates? Why? What *doesn't* affect descent rates? Why?"

The class could keep notes on the discussions, listing ideas, tests, and conclusions. The teacher could, perhaps during the summary, point out tests or hypothesis that failed or were proven wrong, but from which students learned something. Students could use the class records, sort slow, medium, and fast falling objects, and write short passages comparing the three kinds of objects, trying to generalize from them, and speculating on the reasons for or principles behind the results.

The material in this lesson could be related to botany with a discussion of different shaped seeds and seed containers, and how well they scatter seeds. ***S-7*** Students could discuss objects falling on the moon. If necessary, first point out to students that the moon has less gravity, and less air. Students could compare how different objects would fall on the moon as opposed to Earth.

Everyone learning to deepen her critical thinking skills and dispositions comes to insights over time. We certainly can enrich and enhance this process, even help it to move at a faster pace, but only in a qualified way. Time to assimilate and grow is essential.

Making Models: The Atom

(Science - 6th Grade)

Objectives of the Remodelled Plan

The students will:

- develop models of an atom
- clarify the concept 'model' by discussing models they have seen and discussing the purposes of models, and 'good vs. poor model' by developing criteria for evaluating models
- discuss the strengths and weaknesses of their models of atoms

ORIGINAL LESSON PLAN

Abstract

Students examine pictures of models of atoms, are provided with materials, and are asked to make their own models of oxygen, carbon, or sodium atoms. They are asked if they can make the electrons revolve.

from *Concepts in Science* 6th Grade by Paul
F. Brandwein, Elizabeth K. Cooper, Paul
E. Blackwood, Elizabeth B. Hone. p.293

Critique

This lesson offers an opportunity for students to discuss the purposes of models in general and the specific benefits of making models of atoms. Students can also practice assessing models, in light of those purposes. By examining their models at length and in great detail, students can develop their clarity of thought and expression, and review what they know about atoms.

Strategies Used to Remodel

S-10	clarifying ideas
S-11	developing criteria for evaluation
S-1	exercising independent thought
S-6	avoiding oversimplification
S-26	distinguishing relevant from irrelevant facts
S-18	making interdisciplinary connections

REMODELLED LESSON PLAN

The class could begin by discussing models in general. "What does 'model' mean? *S-10* What models have you seen or made? Did they help you understand what they modeled? How?

Why? How can you tell a good model from a poor model? ***S-11*** What's an example of a good model? Why? A poor one? Why? What differences were there between models you have seen and the things they modelled? Why make models? What purpose do they serve?"

Tell students that they are going to make models of atoms. Have students discuss what they know about atoms, and ask, "How could models of atoms help us? How could we make a model of an atom?" ***S-1*** You might ask them what parts they would need, and how they could put them together. Students could make and evaluate various models of atoms and engage in an extended process of designing, making, discussing, and improving models of atoms. Students could be led in a discussion of the strengths and weaknesses of various models, with questions like the following: (Of each proposed model ask,) What parts does it have? What parts do atoms have? Does the model have any extra parts? Does it leave out parts? How is each part of this model like the part of the atom? (Continue for each part, including the connecters.) Unlike? (Encourage multiple responses.) Could this model be improved? How? How do these models help us? How could they mislead us? ***S-6*** How can we avoid being misled? Do these models help you understand atoms? How, or why not? Do any of these models suggest questions about atoms? What? Do the models help you find answers to those questions? Why or why not? Is the difference between the model and the atom relevant to the question you asked? ***S-26*** Why or why not? How could this model be improved? Why would that improve it?"

The teacher could use the idea of models to clarify the concept 'analogy.' ***S-18*** Have students recall analogies. Have them compare models and analogies. (A model is a thing, analogies are words. Both have similarities and differences to the originals. Both can be evaluated in terms of their purposes and whether relevant features are similar or different.)

Your first remodels should use those skills or insights clearest to you. Other principles can be integrated as they become clear.

What Biome Do You Live In

(Science - 6th Grade)

Objectives of the Remodelled Plan

The students will:

- clarify, through discussion, their own concept of 'biome,' the usefulness of distinguishing biomes, and interdisciplinary implications of the concept

ORIGINAL LESSON PLAN

Find out the high and low temperatures and the average annual amount of precipitation for your town. You can find this information in an almanac or by contacting a local weather station. Then look at the table on page 79. In which biome does your town best fit according to the amount of precipitation and the temperature range? Read the description of this biome in this chapter. Does the description sound like the area in which you live? If it doesn't, what conditions make the area different?

from *Silver Burdett Science 6th Grade* by George G. Mallinson, Jacqueline Mallinson, William L. Smallwood, Catherine Valentino. ©1985 p. 101. Reprinted by permission from the publisher.

Critique

The lesson encourages independent thought by having students compare their area with the description, and speculate reasons for any differences. We would extend this discussion. The lesson also offers an opportunity for interdisciplinary work.

Strategies Used to Remodel

S-1	exercising independent thought
S-13	raising and pursuing root questions
S-18	making interdisciplinary connections

REMODELLED LESSON PLAN

The teacher, rather than immediately assigning this page, could first ask students how they could find out what kind of biome they live in. *S-1* "What do you need to know about an area? How could we find those things out?"

When students have identified the biome, use the questions in the original lesson, extended with questions like the following: Why is that our biome? What is different here? Which differences are natural? Man-caused? If different places that have the same kind of biome vary in these kinds of ways, why do we classify biomes? ***S-13*** Does knowing which biome we belong to tell us anything? What? How can we use our knowledge about biomes? Why do other places have our kind of biome?

To have students make interdisciplinary connections, you could ask, "How does what biome an area is affect the history of that place? ***S-18*** Why? Identify the biomes of places we have studied in history. Would that history be different if that place had been tundra? Desert? How? Why?"

What is remodelled today can be remodelled again. Treat no lesson plan as beyond critique and improvement.

Hair Keeps Animals Warm

(Science - 6th Grade)

Objectives of the Remodelled Plan

The students will:

- discuss the importance of controlling variables when experimenting, by critiquing the experiment in their texts
- evaluate the model used by the text for its experiment design

ORIGINAL LESSON PLAN

Abstract

Students remove the labels from two tin cans. They glue cotton around one of them and fill both with the same amount of hot water. They predict the results and then measure and record the water temperature every five minutes for half an hour. The conclusion reads, *"Using the results from this experiment, explain how hair keeps an animal warm."* As an extension they are to consider how sea mammals with little hair keep warm.

from *Silver Burdett Science 6* by George G. Mallinson, Jacqueline Mallinson, William L. Smallwood, Catherine Valentino. ©1985 p. 58

Critique

This lesson affords the opportunity for students to critique their texts. It inadvertently encourages sloppy thinking in students. It does not answer the question it claims to. Though the title question is *"How does hair keep an animal warm?"* all that can be inferred from this experiment is that stuff similar to hair retains heat. It does nothing to explain how, it merely suggests *that* hair (or cotton) helps keep animals warm. Students are likely to answer the question with a restatement of what it asks, i.e., hair keeps animals warm by keeping the heat in.

The lesson offers a number of opportunities for infusing critical thought. Students could explore and evaluate the analogy between the cans of warm water and animals. Critical vocabulary use can be reinforced. The extension about how sea mammals keep warm could be further extended with a discussion of people and reptiles.

Strategies Used to Remodel

S-17	clarifying and critiquing text
S-6	avoiding oversimplification

REMODELLED LESSON PLAN

Students could read the experiment, and discuss its design at length. ***S-17*** For example, you might ask, "Why fill the cans from the same container? What could happen if you didn't? How would that affect the results? Why do both cans have to have the same amount? Why make a graph? Could the data be organized another way instead? Which is best for this kind of information? Why? How would you expect the experiment to turn out? Why? What kind of answer would you give to the question? What did the experiment show? Why? What did it claim to show? Are these the same or different? Why? What is used in place of the animal? Its fur? How like and unlike are cans of warm water and cotton to animals and fur? Are the similarities relevant to the question the experiment poses? Are the differences? Assess this experiment."

Finally, students could consider less hairy mammals and animals. ***S-6*** "Does hair help keep all animals warm? Name some animals that have little or no hair."

Ask students if any related issues were brought up by the experiment or discussion. They could also discuss other forms of insulation.

Every trivial lesson you abandon leaves more time to stimulate critical thinking.

Earthquake

(Science - 6th Grade)

Objectives of the Remodelled Plan

The students will:

- exercise independent thought by using an earthquake's distances from three cities, to locate the epicenter
- understand that the problem solving skills highlighted in this lesson are useful in other situations

ORIGINAL LESSON PLAN

Abstract

Students trace the map of the U.S. that they are given in their text. They are also given the information that an earthquake occurred 1,275 km from San Francisco, 1500 km from El Paso, and 960km from Seattle. Using a compass they are to draw circles around the three cities with diameters corresponding to the information given. They are to use their diagram to answer the question, *"In what state did the earthquake occur?"*

from *Silver Burdett Science 6th Grade* by George G. Mallinson, Jacqueline Mallinson, William L. Smallwood, Catherine Valentino. ©1985 p. 247

Critique

This lesson illustrates the fact that a critique and remodel can sometimes make modest changes in the original. In this case, students are given more directions than they need to be given. Rather than give them the compasses, they could just be given the facts and an opportunity to discuss in small groups how to pinpoint the earthquake.

Strategies Used to Remodel

S-1	exercising independent thought
S-7	transferring ideas to new contexts

REMODELLED LESSON PLAN

This lesson could be introduced by asking students the title question. Give them the map, the tracing paper, and the necessary facts about the earthquake. Then let them struggle with the problem. If necessary, you can guide individuals through the process. *S-1* Ask students to describe the methods they used to solve the problem, and what other problems that method might solve. *S-7*

8

Some Vocabulary and Distinctions

***Critical Thinking*:** refers to

a. a body of intellectual skills and abilities which (when used in keeping with the dispositions and values below) enable one rationally to decide what to believe or do.

b. a body of dispositions

c. a set of values: truth, fair-mindedness, open-mindedness, empathy, autonomy, rationality, self-criticism

Uncritical Person: refers to one who has not learned the intellectual skills above (naive, conformist, easily manipulated, dogmatic, closed- minded, narrow-minded).

Critical Person: refers to any person who in a weak or strong sense uses the intellectual skills above (a critical person may or may not significantly embody the dispositions or be committed to the values of critical thinking. Some critical persons use the intellectual skills to justify or rationalize whatever beliefs they uncritically internalize and do not hold themselves or those they ego-identify with to the same intellectual standards to which they hold those they disagree with or disapprove of.)

Weak Sense Critical Thinker: refers to

a. one who does not hold himself or those he ego-identifies with to the same intellectual standards to which he holds "opponents"

b. one who has not learned how to reason empathically within points of view or frames of reference with which he disagrees

c. one who tends to think monologically

d. one who does not genuinely accept, though he may verbally espouse, the values of critical thinking

e. one who uses the intellectual skills of critical thinking selectively and self-deceptively to foster and serve his vested interest (at the expense of truth)

Strong Sense Critical Thinker: refers to

a. one who holds himself and those he agrees with to the same intellectual standards to which he holds those he disagrees with

b. one who thinks empathically within points of view or frames of reference with which he disagrees (one who is able to see some truth and insight within opponents points of view as well as weaknesses within his own)

c. one who is able to think multi-logically and dialogically

d. one who genuinely strives to live in accordance with the values of critical thinking (hence one who can see occasions in which he or she has failed so to live)

e. one who uses the intellectual skills and abilities of critical thinking to go beyond those beliefs which serve his or her vested interests and to detect self-deceptive reasoning

Critical Society: refers to the notion of a society which rewards adherence to the values of critical thinking and hence does not use indoctrination and inculcation as basic modes of learning (rewards reflective questioning, intellectual independence, and reasoned dissent.)

Monological Thinking: refers to thinking that is conducted exclusively within one point of view or frame of reference.

Monological Problems: refers to problems that can be rationally solved by reasoning exclusively within one point of view or frame of reference (many technical problems can be solved by monological thinking.)

Multi-logical Thinking: refers to thinking that goes beyond one frame of reference or point of view.

Multi-logical Problems: refers to problems which to be rationally solved require that one entertain and reason empathically within more than one point of view or frame of reference.

Dialogical Thinking: refers to thinking that involves a dialogue or extended exchange between different points of view or frames of reference.

Dialectical Thinking: refers to dialogical thinking conducted in order to test the strengths and weaknesses of opposing points of view (court trials and debates are dialectical in nature.)

Dialogical Instruction: refers to instruction that fosters dialogical or dialectic thinking.

Socratic Questioning: refers to a mode of questioning that deeply probes the meaning, justification, or logical strength of a claim, position, or line of reasoning. Socratic questioning can be carried out in a variety of ways and adapted to many levels of ability and understanding.

Reciprocity: refers to the act of entering empathically into the point of view or line of reasoning of others; learning to think as others do and by that means to sympathetically assess that thinking. (Requires creative imagination as well as intellectual skill and a commitment to fair-mindedness.)

Additional Vocabulary

evidence:	The data on which a judgment or conclusion might be based, or by which proof or probability may be established.
premise:	A proposition upon which an argument is based or from which a conclusion is drawn; logic — one of the first two propositions of a syllogism, from which the conclusion is drawn.
assumption:	A statement accepted or supposed as true without proof or demonstration; unstated premise.
conclusion:	A judgment or decision reached after deliberation.
inference:	A conclusion based on something known or assumed; derived by reasoning.
reasoning:	The mental processes of one who reasons; especially the drawing of conclusions or inferences from observations, facts or *hypotheses.* The evidence or arguments used in this procedure.
truth:	Conformity to knowledge, fact, actuality, or logic: a statement proven to be or accepted as true. Not false or erroneous.
fallacious:	Containing or based on a fallacy; deceptive in appearance or meaning; misleading; delusive.
prove:	To establish the truth or validity of something by presentation of argument or evidence; to determine the quality of by testing.
implication:	A claim which follows from other stated claims; an indication which is not said openly or directly; hint; what is hinted or suggested by what is said or done.
egocentric:	A tendency to view everything else in relationship to oneself: one's desires, values and beliefs (seeming to be self-evidently correct or superior to those of others) are often uncritically used as the norm of all judgment and experience.
ethnocentric:	A tendency to view one's own race (culture) as central, based on the attitude that one's own group is superior.
sociocentric:	When a group or society sees itself as superior and thus considers its way of seeing the world as correct; there is a tendency to presuppose this superiority in all of its thinking and thus to serve as an impediment to open-mindedness.

Appendix: Original Lesson Plans

We would like to acknowledge the usefulness of the preceding lessons which we remodelled. We gratefully acknowledge the following publishers for their generosity in allowing the excerpts to be reprinted:

Holt, Rinehart and Winston
Houghton Mifflin Company
Laidlaw Brothers, A Division of Doubleday & Company, Inc.
Silver Burdett Company
Scott Foresman

Jobs

from *Exploring in English 4* by John S. Hand, et al. Laidlaw Brothers. © 1975. pp. 28-35, T31-33. Used with permission.

Language Experience: The pupils participate in a group discussion by exchanging information about different kinds of jobs held by people that they know.

11. Talking about Parents' Jobs

FOR TEACHING HELPS, SEE T31.

When I am a man, then I shall be a hunter
When I am a man, then I shall be a harpooner
When I am a man, then I shall be a canoe-builder
When I am a man, then I shall be a carpenter
When I am a man, then I shall be an artisan
Oh, father! ya ha ha ha

—KWAKIUTL INDIAN CHANT

Note: The word *Kwakiutl* is pronounced /kwaʹkē üʹdəl/.

Study the picture and read the chant sung by Kwakiutl boys of British Columbia and Vancouver in Canada.

Why do you suppose the boys wanted to be hunters, harpooners, canoe-builders, carpenters? Why do you suppose they wanted to be artisans, or men who make things with their hands? **Probably because these were jobs that were most important to the Kwakiutls.**

Read the chant again. Do you or any of your classmates have parents who are hunters, harpooners, canoe-builders, carpenters, or artisans? What jobs do your parents do?

A. What are some jobs of fathers that you know? What are some jobs of mothers that you know?

B. If you told your friends the names of some jobs, would they know what these jobs were? If not, how could you explain these jobs to them?

Activities

A. Form groups of between four and six people in each group. Plan to make a mural showing people doing different jobs.

1. Make a list of jobs of people that you know.
2. Decide what should be in the background of a mural which shows people doing the jobs on your list.
3. Paint the background on your mural.
4. Look through magazines or newspapers and cut out pictures of people dressed to do the jobs on your list. If you wish, you may draw your own pictures and cut them out.
5. Arrange the pictures of people doing jobs. Then paste them on your mural background.
6. Display your mural so that other groups can see it.

B. Try this activity alone. Draw a cartoon strip showing what your mother or father does for a living. Or, if you wish, draw a cartoon strip showing what you would like to do when you grow up.

Commentary

This series of four composition lessons is organized around the topic of jobs. In lesson 11 pupils exchange ideas, as they talk about jobs. Then in lesson 12 they role-play the performing of different jobs. In lesson 13 they interview adults to find information about jobs. Finally, in lesson 14 pupils write imaginative descriptions about how jobs might be done in the future.

Introductory Activities

A very good way to begin this series of lessons would be with a field trip to someplace where pupils could talk to adults who perform a variety of jobs. If this is not possible, a visit or several visits from one or more adults might be a good introduction. The visitor or visitors could explain, and possibly demonstrate, their work.

Teaching Helps

Lesson 11: Talking about Parents' Jobs,
pages 28–29

Teaching goal. To have pupils use language in purposeful talk by exchanging information about different kinds of jobs of people that they know.

Discovery activities. Direct pupils' attention to the picture at the top of page 28. Tell pupils that the boys in the picture are Kwakiutl Indian boys from Vancouver Island or from the mainland of British Columbia. Have pupils find Vancouver Island and British Columbia on a map of Canada.

Read the chant aloud to the pupils as they follow along silently. Then have the pupils try to read the chant aloud.

Using the discussion activities. In doing part *A* of For Discussion on page 29, pupils might be less restricted if you remove the stipulation about fathers and mothers whom they know. Instead, you might have them discuss any jobs they know of.

In discussing part *B*, try to get pupils to describe jobs by describing the functions of these jobs.

Using the composition activities. Before beginning the composition activities, groups should be selected. One way to select groups would be to have five or six pupils volunteer to be group chairmen. These chairmen would then select jobs to show on murals. Each pupil in the class could work on the mural that appeals to him. Another way to have pupils form groups is to use some device such as the alphabetical order of last names or the seating position in class.

However groups are formed, it might be wise to foresee and discourage any disastrous personality combinations. It might also be a good idea to be sure that each group has at least one pupil who has some organizational ability.

Pupils may need some guidance in delegating the tasks involved in making a mural. However, give help only when it is obvious that the group cannot function without it.

Language Experience: The pupils experiment with miming as a method of role-playing as they mime performing jobs before small groups of pupils.

12. Playing a Role

FOR TEACHING HELPS, SEE T32.

Study the poem below and the picture beside it. What are some of the jobs which the boy and his father are doing?

The boy and his father performed three jobs. First they filled the radiator. Then they changed the oil. Finally, they cleaned the car.

AUTOMOBILE MECHANICS

Sometimes
I help my dad
Work on our automobile.
We unscrew
The radiator cap
And we let some water run—
Swish—from a hose
Into the tank.

And then we open up the hood
And feed in oil
From a can with a long spout.
And then we take a lot of rags
And clean all about.
We clean the top
And the doors
And the fenders and the wheels
And the windows and floors. . . .
We work hard
My dad
And I.

What actions did the boy and his father perform in their job as automobile mechanics? What did they do first? What did they do next? What was the last thing they did?

Read the poem again. Think of a job you might like to help someone do. Then answer the following questions.

- What actions would you have to perform to do your job?
- In what order would you have to perform these actions?

Jobs

For Discussion

Suppose that you were going to act out being an auto mechanic. How might you act out each of the following jobs?

1. Unscrewing the radiator cap
2. Opening the hood
3. Putting in oil
4. Cleaning the engine

Activities

A. Form groups of five or six pupils in each group. Then try these activities.

1. Think of a job your group would like to act out.
2. Practice acting out your roles.

B. By yourself you might enjoy this.

1. Think of a job to act out with a puppet.
2. Make a puppet out of your fist.
3. Make up some lines for your fist puppet to say in describing the job he is doing.
4. Put on a performance of your puppet for a friend.

***Note:* Lipstick or magic marker can be used to make features, and yarn can be used for hair.**

Lesson 12: Playing a Role, pages 30–31

Teaching goal. To help pupils experiment with miming as a method of role-playing.

Discovery activities. Have pupils study the picture on page 30. Ask what is different about the car in the picture from the car their father owns. Pupils will probably mention the radiator outside the hood, so you might want to explain what the function of a radiator is. The running board, too, might need some explanation.

Now read the poem aloud to the pupils as they follow along silently, trying to visualize the actions described in the poem.

In discussing the questions in the first paragraph at the top of page 31, ask pupils to read lines from the poem to show what jobs the boy and his father are performing.

In discussing what jobs the pupils might like to perform, ask pupils to demonstrate by miming the different steps involved in doing the job.

Using the discussion activities. In talking about how each of the jobs listed in For Discussion on page 31 might be acted out, encourage specific comments. For example, in talking about unscrewing a radiator cap, ask pupils how they would bend their back and with what hand and in what direction they would unscrew a radiator cap.

Pupils who know a lot about automobiles might wish to act out performing chores on particular cars. Ask these pupils to tell the class what kind of car they are pretending to work on.

Using the composition activities. Caution pupils to think of jobs for *A* which have parts for all the pupils in the group. If groups need help, you might give suggestions such as the following:

1. Taking the tarpaulin off a baseball field
2. Preparing dinner
3. Running a supermarket
4. Working in the yard in autumn

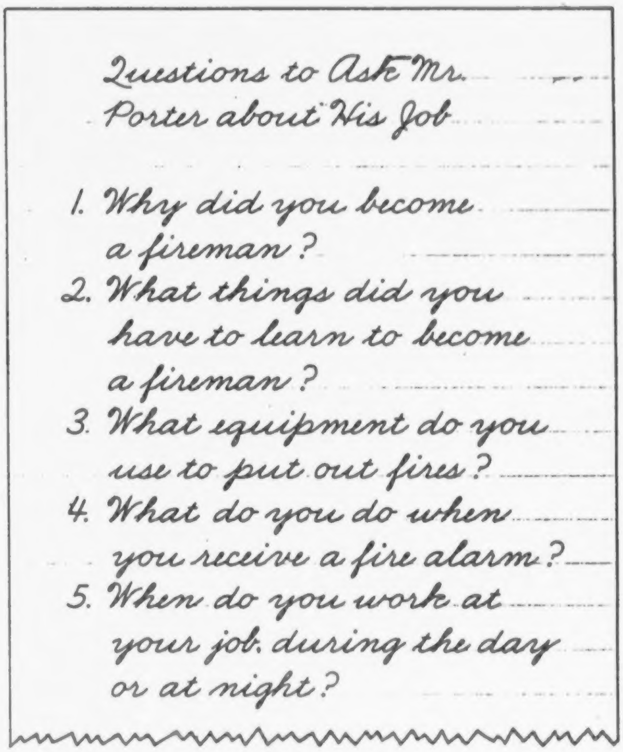
Some pupils or groups may wish to do *B* instead of *A*. You might consider allowing *B* to be done in place of *A* if the desire is very strong, or if a pupil is much better able to express himself through puppets than through mime.

Additional suggestions. Some pupils might wish to form two teams to play a modified version of Charades. Each team could make up a list of jobs for the other team. Each member of a team could then select the name of a job and act out the performance of this job for fellow team members who would try to guess what the job was.

Some pupils might like to look for some songs which refer to jobs. "The Daring Young Man on the Flying Trapeze," "Sixteen Tons," and "I've Been Working on the Railroad" are examples.

Language Experience: Small groups of pupils explore the process of interviewing a person as they select a subject, plan and conduct the interview, and report the results to the class.

13. Interviewing Adults



Questions to Ask Mr. Porter about His Job

1. Why did you become a fireman?
2. What things did you have to learn to become a fireman?
3. What equipment do you use to put out fires?
4. What do you do when you receive a fire alarm?
5. When do you work at your job during the day or at night?

Lesson 13: Interviewing Adults, pages 32–33

Teaching goal. To give pupils the experience of planning and conducting an interview.

Discovery activities. Have pupils study the picture at the top of page 32 and examine the list of questions beside it. Ask pupils where the girl is and what she is doing. Be sure they understand that the list of questions is supposed to be the same list that the girl is holding.

When you finish the lesson, you might ask: "Suppose you were interviewing Mr. Porter about his job. Can you think of any other questions you might ask?"

FOR TEACHING HELPS, SEE T32.

Look at the picture above. What is the girl doing? **Interviewing a fireman.**

Study the questions above. Think of someone you would like to interview, or ask questions, to find out more about his job. Then answer the following questions.

What did the girl ask to find out why a person might want to become a fireman? **Question 1.**

What question did she ask to find out what a person has to learn to become a fireman? **Question 2.**

What questions did she ask to find out what a person has to do when he is a fireman? **Questions 3, 4, and 5.**

For Discussion

Suppose that you are going to interview an adult to find out about his job.

1. How would you ask the person if you could interview him? **Write, telephone, or ask in person.**
2. How would you get ready for the interview? **Prepare a list of questions.**
3. How would you end the interview? **Thank the person for his help and for his time.**

Activities

A. Form groups of about four people in each group. Try these activities.

1. With the other members of your group talk about adults who have interesting jobs that you would like to learn more about.
2. Select one of the people for your group to interview. Be sure that the person you select is someone who you know would not mind being interviewed.
3. Decide how to ask this person whether he will let you interview him.
4. With your group make up a list of questions which you want to ask the person you are interviewing.

Using the discussion activities. You might begin the discussion activities on page 33 by asking pupils how they might select a person to interview. Pupils will probably mention that this person should have an interesting job. Be sure pupils are aware that not all adults will be willing to be interviewed. This makes the method of asking for an interview important. Pupils may then discuss question *1*.

You may then wish to point out that the person being interviewed is doing a favor by granting an interview. This observation may lead to discussion of questions *2* and *3*.

Using the composition activities. It might be a good idea to select the groups for *A*. In this way each group will be sure to have at least one member who can lead.

It might also be a good idea to check to see what plans each group has made for requesting and carrying out the interview. See, too, that each pupil has been able to contribute to the discussion or to the actual interview.

Additional suggestions. Some pupils might enjoy role-playing celebrities. These celebrities could represent many different fields, such as entertainment, medicine, law, and art.

Other pupils might interview their parents, relatives, or neighbors.

5. Decide who is going to ask the questions of the person your group chooses to interview. If two people do the interview, one person could ask the questions while the other writes down the answers. If one person does the interview, he may wish to use a tape recorder for the interview.

6. Have the member or members of your group who did the interview report back to the group.

B. Share what your group learned with the rest of the class.

Language Experience: The pupils discover how to write descriptive paragraphs as they write about jobs in the future.

14. Writing about Jobs

FOR TEACHING HELPS, SEE T33.

Study both pictures at the top of the page. What job is being done in each picture? Which picture shows a job being done in the future? **Housecleaning. The second picture.**

Study both pictures again. Be thinking of another job. Think of how this job might be done in the future. As you answer the following questions, think of sentences you might write describing how this job might be done in the future.

Is the same or a different job being done in each picture? **Same.**

What is different about the room in each picture? **The second picture shows how the room might look in the future.**

What is different about how the housework is being done in each picture? **A hose and a vacuum in the second picture replace the vacuum in the first picture.**

Jobs

For Discussion

Suppose that you live in the year 2000. Think of how you could write a description of how housework is done differently than it once was.

1. What might be a good title for your description?
2. In one or two sentences, what might you say about how housework was done in the 1970's?
3. In one or two sentences, what might you say about how housework has changed by the year 2000?

Activities

A. Think of a job. Think of how it is done now. Think of how this job might be done in the future. Then try the following activities.

1. On your paper, write a title. For example, if you are describing housework, you might write *Housework in the Future.*
2. Write two or three sentences telling how the job is done today.
3. Write two or three sentences describing how the job might be done in the future.
4. At the bottom of the page, draw two pictures. The first picture should show the job you described being done today. The second picture should show the job as it might be done in the future.
5. If you wish, share your written descriptions and pictures with your friends.

B. Have one person in your class collect the pictures and descriptions from each of you. These pictures and descriptions can be put into a class job folder.

Lesson 14: Writing about Jobs, pages 34–35

Teaching goal. To give pupils the experience of writing descriptive paragraphs about imaginative jobs in the future.

Discovery activities. You might begin these activities by asking pupils how old they will be in the year A.D. 2000. Then ask pupils what will be different about the way people will be living then. After a few minutes of discussion, ask pupils what they think might be different about houses and methods of taking care of houses. Then have pupils compare the two pictures at the top of page 34 and decide what things in the second picture are the counterparts of the things in the first picture.

Allow pupils time to read the two paragraphs beneath the pictures and to think about the questions asked in these paragraphs before discussing the questions.

Using the discussion activities. You might have pupils interpret the word *housework* loosely. Give pupils time to really think about the discussion questions on page 35 before answering. Caution pupils to think of specific tasks when discussing the questions. Parking a car, growing vegetables, and cooking a roast are possible tasks.

Using the composition activities. It is a good idea to caution pupils to be specific about the jobs they choose when doing the composition activities on page 35. Some pupils may wish to illustrate and describe more than one job for *A*.

In doing *B*, a volunteer might wish to design a cover for the class job folder.

Additional suggestions. Some pupils might wish to think of one or two possible jobs of the future. Dusting the family computer and being a conductor on a passenger conveyer belt are possible jobs. Pupils could write brief descriptions of future jobs such as these.

Some pupils might like to draw pictures or cartoons showing jobs of the future.

Viewpoints

PAGES 162-163

EMPHASIS

A famous old tale from India alerts children to the fact that people can have different points of view about almost anything. These may depend upon what they know (or think they know) about a subject. Through discussion, youngsters should come to realize that a valid opinion results from impartially weighing differing points of view.

EXPLANATION

Tell boys and girls they are going to hear an old tale in which several blind men try to describe an elephant.

After pupils have heard the story, lead a discussion of the first three paragraphs that appear in the box at the bottom of page 163. Then ask children these questions:

- Why do people often feel that their opinions are the right ones?
- How can this attitude keep people from learning more about a subject?
- What advice would you give to an opinionated person? Do you think he would listen?
- How do you react to a person who won't listen to what you have to say?
- Do you always listen to what others have to say? Do you try to understand another person's viewpoint? Do you try to understand why he has a different point of view?

When discussing the last paragraph in the box, children should note that this old tale resembles a fable, in that it teaches a lesson. What lesson do youngsters think this tale teaches?

from *Language and How to Use It 4* Andrew Schiller, et al. Scott, Foresman, and Co. ©1973 pp. 162-165 Reprinted by permission of the publisher.

Many years ago, in a village in the faraway country of India, there lived six blind men. Now these men had one thing in common. In spite of their blindness, they all wanted to learn as much as they could about everything. And one of the things they wanted to learn about most was the elephant. They had heard a great deal about this huge, wonderful beast, but still they wanted to find out for themselves what it was like. So they had a boy take them to an elephant that was working for its master. Just at the moment, however, the elephant was resting.

As the first man went up to the elephant, he happened to stumble and fall against the side of the animal. "It's easy to see what this creature is like," said the man. "It's like a great stone wall."

Now the second man went up to the elephant, but the first thing he touched was the tusk. "You are wrong!" he cried to the first man. "The elephant is like a strong spear."

When the third man approached the elephant, the animal reached out its trunk and the man felt it. "Aha!" he cried to the first two. "How silly! The elephant is like a snake."

Now by this time the other three men were puzzled. So they all approached the elephant. The fourth man touched the elephant's knee and cried, "*I* think the elephant is like a tree." The fifth man touched its ear and said, "No, no, no! The elephant is like a fan." The sixth man touched its tail and said contemptuously, "You are *all* wrong. The elephant is like a rope."

Then what an argument there was! Each man insisted that he knew exactly what an elephant was like. But you, dear reader, will understand that each man was partly right, and each man was partly wrong. And that is the way it is with a great many people in this world.

Did any of the six blind men give an accurate description of an elephant? Why not?

In what way was each man's description partly right?

How could the men have helped one another to "see" the elephant? Why weren't they likely to do so?

Does this old tale resemble a fable in any way? Try to write a moral for it.

EXTENSION

1. Devise a game to let pupils step into the blind men's shoes and fully appreciate the truth that underlies the tale. Blindfold six children. Let each child feel a different part of an object you have chosen. Without any discussion of the object, he should write at least two sentences describing it. When all six have completed their descriptions, have them read their sentences to the class. Then show the six children the object they have described.

Repeat the game several times with different pupils and objects. Finally, discuss what the lesson teaches.

2. To help pupils realize that there are many valid points of view, list several open-ended sentences that encourage children to think for themselves. You could choose from these sentences:

- In my opinion one way each of us can contribute to a better world is . . .
- Adults could learn something from children by . . .
- When judging someone else, it is important to . . .
- If I were an umpire for a baseball game, my hardest job would be . . .
- When I look at the stars in the summer sky, I see . . .
- The most attractive color for a sweater is . . .

After boys and girls have had time to consider their ideas, invite an exchange of viewpoints. Bring out that many answers are purely opinion. There is no "right" or "wrong," or "better" or "worse" judgment as to whether a blue sweater or a green sweater is the more attractive, for example.

PAGES 164-165

This lesson underscores the importance of trying to understand the viewpoints of other persons. Youngsters discuss what viewpoints certain people would be likely to have on selected subjects and why the people would take those points of view.

After children enjoy the humor in the pup's answer to the bat, ask them to think how both meanings for the word *viewpoint* (1. place from which one can look at something; 2. attitude of mind)[1] apply to this bit of nonsensical verse. If necessary, review the meanings by referring to the blind men who spoke without sufficient information because of their limited viewpoints. Then ask pupils what might have happened if the pup and the bat had traded places from which to look at the world.

Have pupils read silently the dialogue on these two pages. Then, after they answer the first two questions in the box, point to the changes in attitudes. Ask whether anyone in the family changed his opinion during the conversation. What caused that person to react differently to the rainy day? When children sense how each member of the family felt, have them read the dialogue aloud.

Ask how the family's reactions to the rain differed from the blind men's opinions about the elephant. Pupils will realize that the blind men's attitudes differed because each knew only a part of what he was talking about. The family's attitudes differed because each member had a personal reason for wanting or not wanting rain. Lead children to generalize that two reasons for different viewpoints are (1) incomplete information; and (2) personal attitudes.

After pupils complete the discussion suggested in the box, conclude the lesson by eliciting a statement to the effect that, when arguments occur, youngsters should attempt to understand the viewpoints of all persons concerned.

Viewpoints

Listening to poems to detect viewpoint will heighten youngsters' poetic appreciation. For example, read several haiku on rain in Harry Behn's *Cricket Songs* (Harcourt Brace Jovanovich, Inc., 1964) or read rain poems in *The Arbuthnot Anthology*. For example, "It Is Raining" by Lucy Sprague Mitchell presents viewpoints with which pupils may not agree. Annette Wynne's "Excuse Us, Animals in the Zoo" in the latter reference has as its theme the consideration of others' viewpoints.

Although most of us don't look at the world upside-down, all of us see things in slightly different ways because we are all different. As you read the conversation below, notice the different viewpoints that five people had on the same subject.

MOTHER: My goodness, just listen to that thunder! We're in for a good rain this afternoon. I'm glad I have that new book to read.

DOT: Our Girl Scout hike is going to be spoiled. It always rains when we have something planned.

MARY: Can't you wear raincoats on your hike? I'm going to wear my new pink raincoat and hat today. I think I'll put them on right now and go outside.

ALLAN: If you're going out, why don't you help me deliver my newspapers? I need help today. With all this dumb rain I'll have to put the papers inside the screen doors.

DOT: Maybe there's a chance the rain will stop in an hour. We might still have our hike then unless it's too muddy.

MOTHER: You're not much of a hiker if you're afraid of some mud.

ALLAN: I just heard Dad come in the door. Maybe he'll drive me around on my paper route.

DAD: I'm certainly glad I got up early and planted those tomatoes today. What a wonderful rain for the new garden!

MOTHER: Do you think you could take Allan on his paper route? He just got over a cold. I'll have some hot soup for both of you when you get back.

DOT: The hike leader called, Mother. We've decided to work on our troop scrapbook instead of hiking. I told her the girls could come over here to paste and cut. I wish we could have some cookies.

MOTHER: There goes my quiet, rainy afternoon.

How did each person view the rainy day? Why did each one probably think as he did? Perhaps you've had a similar experience. Tell about it.

The people below would probably have different views on the subjects under which they are listed. Discuss what their different views might be.

a school holiday	**a pet dog**	**bedtime**
a mother	a child	parents
fourth-graders	parents	a little brother
a teacher	a neighbor	you
a traffic officer	a mailman	a baby sitter

Beliefs

LESSON 8 4 days

This lesson develops children's understanding of themselves as human beings and as members of groups. It focuses on the effect of beliefs on the other categories of culture.

The learning experiences in this lesson help to develop the skills of conceptualizing, inferring, imagining, and acquiring and reporting information from direct observation of television ads. The lesson also fosters self-awareness and respect for others.

The student should be able to:

- Conceptualize the relationship of beliefs to other categories of culture by listing examples of selected relationships.
- Exhibit decreasing ethnocentrism by expressing, from the viewpoint of an Aztec, beliefs about the natural system.
- Infer the part of the natural system that pictured nature deities may represent.
- Demonstrate self-awareness by naming a belief he or she has about one of the categories of culture.

student text pages 88–95

paper and pencil; globe or map of North America (optional: magazine and newspaper pictures of people demonstrating or working for a cause)

beliefs (review: natural system)

from *Planet Earth*, James M. Oswald. © 1976 by Houghton Mifflin. pp. T124-131. Used with permission.

HOW DO BELIEFS AFFECT OUR LIVES?

People feel some things are more important than others. They value these objects or ideas or ways of doing things. Out of their values grow many **beliefs.** For example, one group of people may put a higher value on the group than on the individual. From this value may come such beliefs as – land should be owned by the group; each person should work for the good of all; each person should get a fair share of the goods produced.

Beliefs are like a thread. They weave together the other parts of culture. Beliefs may be shown in paintings and carvings, in stories and poems, and in songs and dances. They may affect the kind of technology a group of people will have, or the kind of family, or the ways people learn. The goods and services people use, the laws they make, and their religious institutions also grow out of their beliefs.

Take a look at the way beliefs can affect just one part of people's lives. Suppose a traveler from Outer Space came to Earth and wrote this about visiting a large city:

> The first thing I saw when I came to this city was a strange monster. It rushed past me, screaming and blaring. Its coat was shiny and bright. It was a very strange monster, for it had eyes in front and in back of it. It had two round eyes on its front, and square eyes on its rear. All these eyes glowed in the dark. And it ran on round, black feet. It was followed by a herd of smaller monsters. They darted from side to side, hooting and crying.
>
> These monsters seem to be the most important form of life here. The large ones don't let anyone get in their way. And their young do not seem to have had any training at all. They scurry around like ants.
>
> All the monsters smell bad. Their voices are harsh and hurt the ears.

What are the "monsters" in the story? Would you agree with the visitor from Outer Space?

Beliefs

Many people believe cars are an important part of their lives. This belief has affected the rest of their culture.

Look around you on your way to school. How many stop lights do you see? How many signs tell drivers what to do? What institution do cars affect?

Do a survey of the ads on television. How many are ads about cars? How many are about things that have to do with cars? How many ads that are *not* about cars show people using cars? And how many of the ads have nothing at all to do with cars?

What does your survey tell you about the value people place on cars? What does it tell you about the interaction of beliefs with language and technology?

How might a belief that cars are important affect the technology of building roads? Of building railroads?

What skills have people developed because they believe cars are important?

What institutions do the pictures show? How are they affected by the belief that cars are important?

What needs do cars help people meet?

Humans depend on the parts of the natural system. A look at some peoples' beliefs indicates how important the natural system is in people's lives.

Long ago, a people called the Aztecs lived in Mexico. They lived in a huge valley that had many lakes. All around the valley were volcanoes. These volcanoes often caused earthquakes. Cracks appeared in the ground, and buildings were torn apart.

Part of the year there was little rain. The land dried up, and the air was filled with dust. Plants died because they did not get enough water. Part of the year there was heavy rain. It filled the lakes and made floods that tore down houses.

At such times, the Aztecs feared the natural system. They did not have the technology to change their environment. They could do nothing to stop the floods or earthquakes.

But the Aztecs also valued the natural system. The wind cooled them when days were hot. Rain and the warm sun made plants grow. The land could be made into sun-dried bricks for houses. The plants that grew in it met most of the people's needs.

This shield of feathers and gold has the symbol of an Aztec ruler. The painting shows the valley where the Aztecs lived.

If possible, show students magazine and newspaper pictures of people working or demonstrating for a cause in which they believe. Otherwise you might discuss with the students such things as Peace Corps workers, mission doctors and nurses, workers striking, people marching for civil rights, marches against poverty. Ask students what they think the people involved in these situations feel is important. Help them see that what people feel is important may lead to other beliefs. For example, someone who feels that the health of people is important may believe that all people have the right to inexpensive medical care. Give the students two or three examples to help them see that one belief may lead to others.

Name a belief and ask students to think how it might affect the way a person lives. How might it affect other parts of culture? (A belief that all should have medical care might cause a person to become a doctor or nurse who works with needy people in an impoverished area. (This would require the learning of medical skills (technology) and perhaps the acquisition of a new language.) Don't press children for answers, since beliefs are intangible and difficult for them to grasp, but give them a chance to recognize that beliefs can affect the other categories of culture. (The Background Information on page T131 will be useful in your lesson preparation.)

Read to the students or have them read the story on page 89. After they've identified the "monsters" as cars, ask them how they feel about cars. Let students speculate about why the space traveler saw cars as monsters. Have them imagine they've never seen a car before and suddenly are put in the middle of a city at rush hour. How would they feel? Give them a chance to empathize with the hypothetical space traveler.

Then ask students to describe their own impressions of city traffic. ***Does it ever frighten you? Or do you accept it as a matter of course? Does a day ever pass when you do not see at least one automobile? How would you feel about visiting some place where there were no cars?***

Answering the questions on page 90 will give students insight into the way beliefs affect the other categories of culture. Stoplights, mileage signs, signs restricting speed or giving other directions to motorists reflect ways cars affect language. An automotive-oriented society must of necessity affect government, the institution that makes laws and decisions. Advertisements about cars and car products show how cars affect the economic institution.

Have students conduct the television ad survey over a limited period (two or three days). Here is a sample survey sheet students might use.

	NUMBER OF ADS		
	Day 1	Day 2	Total
Ads about cars			
Ads about car products			
Ads about other goods but showing cars			
Ads about other goods, *not* showing cars			

Explain, if necessary, that ads about cars would include ads about new or used cars for sale; whereas ads about car products would be about such items as gas, oil, and tires. Have students include in their record the time period involved (1 hour, 2 hours, and so on) in surveying television ads.

Discuss the results of the survey with students. They may have found that a surprisingly high proportion of ads were oriented toward an audience valuing cars. Ask what their findings tell about the importance of cars to people in the United States.

Valuing cars would lead to the building of highways and often the decline of railroads. If you can find an old atlas showing highways and railroads before 1945 to compare with a current one, students will have a better idea of the effect of an automotive society on technology.

Have students list people whose jobs are related to cars — traffic officers, workers in an auto factory, highway construction crew, auto salesperson, auto mechanic, gas station attendant — to help them understand how valuing cars can affect the skills people learn. Encourage children to talk about people they know who have jobs connected with automotive vehicles.

Beliefs

The Aztecs did not know what caused floods or earthquakes. They explained them by saying that there were gods and goddesses of air, land, water, and sun. The Aztecs said that floods came when the god of rain was angry. Then the Aztecs would ask the god of the sun for protection. When it was dry, they would pray to the god of rain.

The Aztecs were not the only humans who have felt this way about the natural system. Many other humans have believed in gods and goddesses of air, water, sun, and land. Like the Aztecs, they prayed to these gods and goddesses and gave them gifts.

The pictures on page 91 show institutions — driving school, drive-in restaurant, drive-in bank — that cater to a population which values cars. Shopping centers that can only be reached by car reflect this outlook. Help students to understand that one reason people value cars is that cars help people meet many needs. Automotive vehicles help people get to work. They help people get food from stores and deliver goods and services. They can transport people on trips, to various kinds of institutions of learning, and to scenic places and museums to help meet the need for beauty. They can make it possible for families to do things and go places together.

Explain to students that just as our beliefs about cars can affect our language, technology, and institutions, so can beliefs about the natural system. For example, a belief that trees were important might cause a government to make more parks. Trees might be used as symbols on advertising signs. Technology would emphasize skills in growing trees and in using tree products.

In discussing beliefs about the natural system, help students realize how people depend on this system by asking students what would happen to bread if the wheat it was made from was killed by a severe dry spell. Why might people think the sun caused the disaster?

The discussion of the Aztecs will help to build the idea that beliefs often develop out of events occurring in the natural system. Use a globe or map of North America to locate Mexico. Have students notice its location relative to your community. Then point out Mexico City, which stands on the site once occupied by Tenochtitlán, the Aztec capital.

The Aztecs were the last of the societies which arose in the Mexico-Central America area in what is called the pre-Columbian period. Along with the earlier Maya, today the Aztecs are the best known of these early societies because many records of their language, beliefs, technology, and institutions were preserved. Investigations by archeologists and anthropologists have further enlightened us on Aztec society. A good popular source for information about them is *Everyday Life of the Aztecs* by Warwick Bray (Putnam, 1968), which combines excerpts from Aztec writings and Spanish reports.

The Aztecs maintained a close contact with the natural system. This is evidenced by the fact that they named and described thousands of plants and animals. (You might like to point out to students that some of our words for living things — coyote, tomato, chocolate, for example — come from Aztec words.) Aztec interest in the natural system was also indicated by the names of people and gods — Seven Serpent, Flower Prince, Hummingbird Warrior, Feathered Serpent, One Reed.

Give students time to study the pictures on pages 92–93. The feather shield represents a lost art. It probably belonged to Ahuitzotl, the uncle of the ill-fated Moctezuma during whose reign Mexico was conquered. It depicts an imaginary aquatic animal and reflects the Aztec interest in the natural system. The painting of the valley of Mexico is by one of Mexico's leading landscape artists, José Maria Velasco, and was painted about 1900. While it shows a drier valley than in Aztec times, when there were more lakes, the landscape had changed little since the time of the Conquest. (Today much of the valley is covered by the expansion of Mexico City.) The painting is interesting because it shows (on the left) the two snow-covered volcanoes — Popocatepetl and Ixtaccihuatl — that dominate the valley. Point these out to students and have them note the many smaller cone-shaped hills which are further evidence of volcanic activity.

Help students to understand that, because the Aztecs lacked the technology to control floods and earthquakes, many lives were lost during natural disasters, and crops were ruined. Explain to students that while we still cannot control earthquakes, we can build dams that control much flooding. Also we receive advance warnings of natural disasters through modern media, and these warnings help save many lives.

Beliefs

Humans are born into societies that have already established values and beliefs. Children accept, adapt to, or reject these beliefs as they grow and learn. This lesson helps students become more aware of the prevalence of beliefs in their society. It should help students to become aware of, and to clarify, some of their own beliefs and to see how they agree or conflict with beliefs held by others. Understanding that other people at different times and in different places have held a variety of beliefs can help children tolerate diversity and respect differences in beliefs. Students may also recognize that, while beliefs in nature deities are held by far fewer people in the modern world than they were in the past, we are still linked to the natural system. In the past few years many people's beliefs about the natural system have begun to change as people have become increasingly aware of humanity's dependence on the natural environment. The following units will explore each of the parts of the natural system in more detail and help elucidate the interaction of the natural environment and culture.

These pictures show the ways different peoples have thought of their gods. What part of the natural system do you think each god stands for?

Today many people believe there is only one God. They do not think there are gods or goddesses of air, water, sun, and land. But they realize that the natural system is important to life on Earth.

We have seen how important culture is to humans. Culture helps people use and change the natural system.

The units that follow take a closer look at the parts of the natural system. We will see how these parts and culture interact with each other.

Beliefs

An important viewpoint for students to begin to discover is that of viewing unfamiliar societies in the context of those societies. Have students imagine what it would be like to live in the valley of Mexico in Aztec times. How would they feel when heavy rains caused floods? Would they think there might be some being that was causing the rain? How might they feel about sun that brought drought? How might this lead to a belief in a sun deity? Have students speculate about how Aztec beliefs in nature deities might affect the other categories of culture. Encourage students to try to put themselves in the place of the Aztecs rather than disparaging Aztec beliefs because they differ from the students' own. Point out to students that putting ourselves in someone else's place helps us understand that person better. As students learn to view a society in its own terms, their ethnocentrism should decrease.

Have students look at the drawings on pages 94–95, which represent the attributes of nature deities in which people have believed in the past. To help students associate the gods and goddesses portrayed with the natural system, call their attention to the details that indicate functions or qualities of each. The following brief descriptions may be helpful to you.

PAGE 94 (from top). *Tellus Mater:* a very early Roman goddess, the Earth Mother (Mother Nature) from whom all living things get life. Also called *Terra*, the Latin word for Earth. *Poseidon:* Greek god of the sea and its inhabitants, often associated also with horses. *Amaterasu Omikami:* an ancient sun goddess in the Japanese Shinto religion. The ruling family in feudal Japan claimed descent from her, and Japan is sometimes called "Land of the Rising Sun."

PAGE 95 (from top, clockwise). *Thor:* Germanic god of thunder, noted for his immense strength; when he struck clouds with his hammer Mjollnir, it caused thunder and lightning. *Surya:* a very early Hindu sun god, known as the all-seeing, who drove out both darkness and evil and was reputedly made of brightly polished copper. *Nisaba:* the Sumerian goddess of grain. *Wind mask:* several different peoples in the Americas believed in a wind god whom they often represented by a mask with blowing lips.

Have each student choose one category of culture. (You may wish to split the category of institutions into its five basic components — family, religion, education, economics, government.) Ask students to name one belief that relates to the category chosen. To help students, give them some simple examples. *Language* — one should say "thank you" when one is given something; *technology* — people should wear seat belts; *institutions* — children should obey their parents; you should not jaywalk. Let students work together in small groups to list ways the beliefs named affect that category of culture.

On student text pages 96 and 97 you will find review exercises for Lessons 4–8 and for the unit. The suggested duration for this lesson (4 days) is intended to accommodate the use of these review exercises.

Have students interview people in their family or community on the value of public transportation compared with the value of private cars. Have students follow the guidelines for interviewing as they did in Lesson 3 (page 68).

Have students pick something that is valued highly in their society (such as television, certain hair styles, style of dress, sports). Television and magazine commercials are a good starting point. Have them find pictures that show how this valued object affects language, technology, and institutions.

Students may wish to know more about religious beliefs of the major religions or of lesser-known ones. Encourage them to use reference books to add to their understanding.

Language

HOW HUMANS USE LANGUAGE

These words are printed on paper. Before words were put on it, the paper was blank. Now it has been used. The words printed on the paper have changed it.

Like words printed on a page, human culture is printed on the natural system. Culture – language, tools, institutions, and beliefs – helps people use and change the natural system. Culture gives us many ways to meet our needs for air, water, food, and shelter.

Language is the way that people **communicate** (kuh-MYOON'ih-kate), the way we send and get messages. Humans and other living things communicate by sounds and gestures. What messages do you think they are communicating in these pictures?

What gestures do you use? What does each of your gestures mean?

People may use **symbols** (SIM'bulz) when they communicate. Symbols are things that stand for something else. Symbols can be pictures or signs. They can be words. Symbols are a short way of saying something.

A few of the symbols people use are shown above. What other kinds of symbols can you name?

The symbols you probably know best are numbers and letters. Letters are put together to make words. And words are grouped together to make sentences. The sounds, gestures, and symbols that people use make up **language.** Human language makes it possible for us to communicate in ways other living things cannot.

In how many ways can a dog tell you it is hungry? In how many ways can you tell someone that you're hungry? Humans can use many different forms of language.

Sometimes one kind of language is better than another. Suppose you wanted to tell someone how to get from your home to your school. Which of the two kinds of language shown here would be better to use? Why?

from *Planet Earth*, James M. Oswald. © 1976 by Houghton Mifflin. pp. T80-87. Used with permission.

Language can also communicate beliefs. It can tell you what people like and what they don't like. Language can tell you what people think is important.

I think it's wrong to litter.
I'd rather walk than ride my bike.
People should get lots of exercise.
I like potatoes better than peas.

How would you use language to tell someone about your beliefs?

The pictures below show you how the expressions on people's faces communicate feelings. What other forms of language can you use to show these feelings?

Human language makes known our ideas, feelings, and beliefs. It can do even more.

There is something only human beings can communicate about. Read the sentences below. What is it?

Will you go away on your vacation this year?
Yesterday I was so tired I fell asleep at the table.
Last week I read three books.
I'll pick up the cleaning tomorrow morning.

Language

By barking and jumping, a dog can tell you only that it is hungry *today.* It has no language to tell you it was hungry yesterday or that it will be hungry tomorrow. But people can use language to communicate about the past, the present, and the future.

Language can do even more. Here is a picture of Erasmus (ih-RAZ'mus). Erasmus died more than 400 years ago. He lived in the Netherlands, thousands of miles away from the United States. How can he communicate with you now? (*Hint:* People are communicating in this way with you right now.)

People use language to communicate information, ideas, and feelings. Why is this important? By communicating with each other, we find it easier to meet our needs.

Here are some sentences you might hear in your school. In each case, what human need is language helping to meet?

May I get a drink of water?
I'm cold. May I close the window?
Will you play at my house after school?
Watch out for that ball!
Will you help me learn that game?
Can I borrow that record? I like the music.
That's a nice picture. You're getting good at painting.
I'm starved. Can I have part of your lunch?
Get off me! I can't breathe.

Language

This lesson develops children's understanding of themselves as individuals and as human beings. It focuses on how people use language to communicate.

The learning experiences in this lesson help to develop the skills of conceptualizing, inferring, and hypothesizing. The lesson also fosters self-awareness and tolerance of uncertainty.

The student should be able to:

Conceptualize *language*, by giving examples of the sounds, symbols, and gestures people use to communicate.

Infer from pictures some of the kinds of information language can communicate.

Demonstrate tolerance of diversity by investigating food preferences and pointing out that people's likes and dislikes vary.

Demonstrate self-awareness by expressing her or his feelings in response to certain situations or objects.

Cite evidence to support the hypothesis that humans use language to meet their needs.

student text: pages 42–51 and map on page 324

drawing materials

communicate, symbols, language, information

Give students a few minutes to study the Unit Two opener (pages 42–43). Ask them what things the picture shows. Students should recognize that the preponderance of objects were made by humans. (The Background Information on page T87 will be useful in your lesson preparation.)

Have students read pages 46 and 47 and answer the questions in the text. They should recognize that a map showing directions is often a more effective means of communication than words alone. (They might be interested in knowing that the map on page 46 was drawn by a fifth-grade student in Charlestown, Massachusetts. Students might enjoy making similar maps.)

Point out to students that people using an airport may speak a number of different languages. If your community has an international airport nearby, students may have firsthand experience with this. They might get a better understanding of the problems of communicating if you have them imagine they're in an airport in a country where few people speak English. Ask them: ***How would you know where the restrooms are? How would you find out where to get a bus or taxi? To make a phone call? To get something to eat?*** Point out that international airports use pictorial signs like those in the picture at the top of page 47. Have students try making up signs for the classroom, using both written and pictorial language. Ask them which of the signs communicate most effectively.

To help children see that feelings vary from individual to individual, ask them to name foods they like very much. Then have them name foods they don't like. List their responses on the board. Have the class as a whole indicate, by raising their hands, whether they agree with the items listed. Keep a tally beside each food. Then ask: ***Are there some foods that all of you like? Dislike? What foods do only a few of you like? Dislike? Do you think other people would have the same likes and dislikes? Why?*** Help students to recognize that likes and dislikes are an individual matter. They should realize that if a sampling of the class shows a number of differences, then there may be more differences when more people express food preferences. Help students to accept and tolerate these differences by pointing out that what is important to one person may not be important to another.

Language

Give students some examples of different ways of communicating. Tell them you are going to give them the same message in two different ways — first by gesture and then by sound. Ask them to identify your message and tell how you communicated it. Making the first example an easy one will give them confidence to identify more difficult examples. You might put your finger to your lips, then say "please be quiet." Other examples common to the students' experiences will further their understanding.

To help students understand that communication is a two-way process, read them something in a foreign language, use sign language, make meaningless sounds, or jumble words in a sentence. Ask them what you're doing. Are you sending a message? Do they understand the message that's being sent? Why do they think it's important for sender and receiver to use a language that both understand? They should realize that comprehension is part of communication.

Ask students to tell what they think each of the pictures on page 44 is communicating. Have them tell what kind of communication is being used in each. Then divide the class into two groups and have one group try to guess the gestures made by the other. Discuss with students whether gestures alone are sufficient to communicate. Students should begin to realize that a gesture must be common to both sender and receiver for a message to be understood and that gestures are suitable only for a limited amount of communication.

To help students understand the meaning of symbols, have them identify those pictured on page 45 (nautical flags, road sign, musical score, account number, and map symbols). Give them a chance to name some other symbols they're familiar with. They might enjoy making up symbols, perhaps to go with school rules. Let students volunteer to show their symbols to the rest of the class, who will try to express what each symbol means. If a symbol is not clear, ask students why it fails to communicate a message. Discuss with students how they could improve their symbols and make their messages clearer. Have students consider why symbols, used alone, limit one's ability to communicate. They should recognize the overall advantage of words over gestures and symbols as a means of communication.

To give students further practice in interpreting symbols, have them do the map skills exercise "Using Symbols," on student text page 324.

Use the pictures on pages 48–49 to explore how facial expressions reveal feelings. After students identify the feeling expressed by each picture, ask what they think caused the person in the picture to feel the way she or he does. (If students think that the child is showing fear because he is about to receive medical treatment, point out that fear often comes from ignorance; that if the child knew treatment would make him well, he would probably not show fear.)

Students may enjoy making up stories to go with the pictures. Discuss with the children why there are different interpretations to the pictures to help them see that each individual has different feelings and may express them differently.

Students might like to bring into class snapshots and magazine pictures that show people with different expressions. Have them write or tell what each person's expression communicates to them. You might also want to talk about how we are able to sense another person's feelings by the way he or she is sitting or standing or by the gestures he or she makes.

Then choose some subjects about which children may have strong feelings. You might show them contrasting pictures of urban or rural scenes, different kinds of clothing, various natural or human-made objects. Or name some colors or ask students how they feel about darkness, a beautiful day, a rainy day, a birthday party, a holiday. Have students choose a picture, or draw one, that expresses how they feel about the subjects named. Or have them choose a song that expresses how they feel on a particular occasion.

Language

To stress the importance of language in transmitting ideas through the ages, you may want to talk about ancient writings such as Egyptian hieroglyphs. The picture on page 266 of the student text shows an example of these hieroglyphs. You might want to show it to students, tell them that it is very, very old, and explain that the meaning of the hieroglyphs was lost until the Rosetta stone was found. Because this stone contained the same message both in hieroglyphs and in a language that was known, it was possible to use it to find out what hieroglyphs like those in the picture meant.

Tell students about the time capsules that are deposited in different places to serve as messages to future generations. Ask them to think of what one thing each of them would wish to communicate to someone twenty years in the future. Have them make up a class time capsule containing these different messages. Encourage students to use a variety of forms of language in their communications.

Ask students what needs the sentences on page 50 are about. Let them add examples of their own. Then have them look at the pictures on page 51 and identify the need language is helping meet in each case (clockwise from the top: need for food, for safety, for self-actualization and/or learning, for water, for beauty and/or learning).

Ask students: ***Which of these needs do you have? Which of them do other people have?*** Have students name examples of other ways language can be used to help meet people's needs. What can they say about human use of language? They should recognize that, since all humans share the same needs, all humans use language to communicate and satisfy their needs.

Have students form small groups, each one responsible for making something that communicates what he or she feels is the most important need of the school, community, nation, or Earth. They may make a montage from magazines, mime, write a story, play, or poem, make posters, or do paintings or sculptures or models.

Have students keep a diary that tells how they feel and what they did during one week. The diary might be kept in writing, spoken onto tape, or done pictorially.

Communication is vital to existence. It is now known that many animals communicate with each other in a variety of ways. Honeybees do a dance on the hive wall to indicate the direction and distance of a food source. Dolphins in the depths of the ocean communicate by sound; birds use song to warn off territorial invaders.

Human language is both verbal and nonverbal. Verbal language may be spoken or written, whereas nonverbal language relies on gestures, signs, and symbols other than words. Although humans mainly use spoken and written language as a means of communication, they also communicate through gestures and body language.

Language is not only a part of culture; in some ways it shapes culture. It is a means of expressing and satisfying our needs and of communicating our values, attitudes, and beliefs.

from ***Europe, Africa, Asia, and Australia*** **Kenneth S. Cooper. © 1984 Reprinted by permission from Silver Burdett Co. pp. 140-151.**

The Birth of Modern Europe

Develop an understanding of the term *modern* by asking pupils if people living 300 years from now will consider people living today modern?

The Middle Ages

VOCABULARY

- **knight**
- **fief**
- **vassal**
- **feudalism**
- **manor**
- **serf**
- **guild**
- **monopoly**
- **apprentice**
- **monastery**
- **abbot**
- **convent**

Periods of history The word *modern* comes from a Latin word meaning "just now." We say we are living in modern times, but so did the German writer, Cellarius (se lâr'i us), who lived nearly 300 years ago.

Cellarius wrote books in Latin. One of his books, *Modern History*, came out in 1696. It told the story of Europe from 1453 to his own times.

You may think it strange that Cellarius called the times he lived in "modern" because he lived so long ago. But will people living 300 years from now think we lived in "modern" times?

The fact is that people always think of their own times as modern, or "just now." Socrates and Julius Caesar did not think they lived in ancient times. It is we who call their times ancient.

Cellarius also wrote two other histories. He called one *Ancient History*. It told of events before A.D. 337. The other book was a history of the period between ancient and modern times. He called this book *History of the Middle Ages*. We have continued to use Cellarius's labels for these periods of history, but not all people who study history agree with the dates Cellarius picked.

Cellarius may have chosen A.D. 337 as the end of ancient times because that was the year the great Roman Emperor Constantine (kon' stan tēn) died. Cellarius chose 1453 as the end of the Middle Ages because that was the year Turkish armies conquered the city of Constantinople (kon stant' ən ō pəl). Other historians have chosen different dates, but most use the name he invented. They call the period between ancient and modern times the Middle Ages.

Life in the Middle Ages What was life like in the Middle Ages? The answer to that question depends on what part of the Middle Ages you are talking about, what part of Europe you mean, and what kind of people you are studying.

Life in the early part of the Middle Ages was different from life in the later part of the Middle Ages. The lives of the peasants who worked the land were very different from the lives of the nobles who owned the land.

It also made a difference where you lived. Europe is a continent with many different types of land and climates. Life in southern France was different from life in Scandinavia.

Most of Europe was Christian during the Middle Ages. But Moslem armies from North Africa invaded Spain. The Moslems were stopped when an army led by Charles Martel defeated them at the Battle of Tours (tůr) in A.D. 732. You will read more about Moslems in Unit 5.

Charles Martel's grandson, Charlemagne (shar' le mān), became a great emperor. He ruled much of Western Europe, but his empire came apart when he died in A.D. 814. Western Europe broke into many small states. It remained divided until strong rulers came to power later in the Middle Ages.

A king who conquered his kingdom William the Conqueror was fat, bald, strong, and brave. Few people could bend his bow, which he used with ease. Few warriors showed a greater bravery in battle. William was a fierce fighter. He had to be, for he lived in warlike times.

William was the son of the Duke (the lord or ruler) of Normandy, a part of France. William's father died when William was 7. In those warlike times, it seemed doubtful that young William would live long enough to rule Normandy.

One night enemies broke into the castle where William slept. They would have killed him if his uncle had not slipped him out of the castle and hidden him with woodchoppers in a forest. It was a dangerous time for William because he was too young to defend himself in battle and protect his lands.

That soon changed. William grew up and at the age of 19 he led his loyal followers in putting down a rebellion.

William now ruled Normandy, but he had his eyes on a bigger prize. His cousin, King Edward of England, had no children. When Edward died, William claimed to be the king of England. The English leaders did not accept William. Instead, they crowned Harold, an English noble, as king. William decided he would try to conquer England.

In September 1066, William sailed for England with an army. King Harold was fighting other enemies in the north, so no one stopped the landing of William's army.

William was the first to come ashore. As he stepped on the beach, he stumbled and fell flat on his face. His followers might have taken this for an unlucky sign, but William was a quick thinker. He grabbed two handfuls of dirt, and as he got up he shouted, "I now take hold of the land of England!"

The armies of Harold and William met at the Battle of Hastings on October 14, 1066. William's army defeated the English, and King Harold was killed.

There is a very unusual record of the Battle of Hastings. It is a 231-foot (70.4 m) strip of cloth known as the Bayeux Tapestry (bā yū' tap'ə strē). The Bayeux Tapestry was made 11 years after the Battle of Hastings. It shows the story of William's conquest in pictures and words, much like a modern comic strip.

The part of the tapestry shown on this page illustrates one event in the Battle of Hastings. William had a horse killed from under him. Word spread that William was also killed. William quickly got another horse and rode into the thick of the fight. He boldly lifted his helmet and shouted, "Here I am! Look at me! I live and will conquer yet!"

The tapestry shows that the Normans fought mostly on horseback while the

English fought on foot. In the scene shown, William has raised his helmet so that his men can see he is not dead.

After his victory at Hastings, William and his army went to London. The English crowned him king. Duke William of Normandy was now also *King* William the Conqueror of England.

Raising an army without taxes William had won a great prize, but he had to reward those who had helped him win it. William gave his soldiers lands taken from Harold's followers. But William did not give away the land without getting something in return. Each person who got land had to swear loyalty to William as lord. Each had to promise to give William a certain number of armed men with horses for service to the king every year. These mounted fighting men were known as **knights.**

Knights formed the backbone of most fighting forces in the Middle Ages. Their main purpose in life was fighting, and they spent many years learning their trade. Young boys from noble families studied the art of fighting under the keen eyes of older knights. The boys learned how to ride and how to use a sword and lance. After serving older knights for a period of time, the young men were knighted by their lords.

The land granted to William's followers was known as a **fief** (fēf). The people who got fiefs were called the king's **vassals.** Granting fiefs made it possible for William to have a fighting force at hand when he needed it without having to pay money for it.

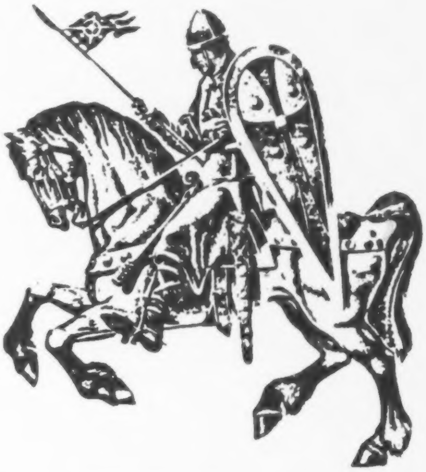
A vassal who promised knights to the king got them by giving parts of his fief as smaller fiefs to other people who would promise to supply knights. The king's vassals became lords of their own vassals. These vassals, in turn, would grant parts of their fiefs to still others, and so on. The smallest fief was usually granted to a single knight who promised to serve his lord each year.

Feudalism The system of granting fiefs for the service of knights is called **feudalism** (fyü' də liz əm). It divided the power to govern among a number of nobles. Each lord ruled his vassals just as he was ruled by his lord. This meant that each lord protected his own vassals and settled their disputes in his courts.

Feudalism was the system of government in much of Western Europe during the Middle Ages. If all went well, the feudal arrangement should have kept order. But things rarely went smoothly. Vassals sometimes grew more powerful than their lord. Oaths of loyalty were not always kept. Vassals fought against vassals, and lords could not stop them. Vassals often revolted against their lords.

There could hardly be peace in a time when so many people had small private fighting forces and their own private forts—their castles.

You may think it would be fine to live in a castle. But castles in the Middle Ages were built mainly for protection, not comfort. Thick stone walls might keep out an enemy, but not the damp winter weather. Small windows served well for lookouts, but they let in little sunshine. Castles were usually built in hard-to-reach places. If possible, a water-filled ditch called a moat surrounded a castle. A moat helped protect a castle from attack.



Manors Almost all ways of life during the Middle Ages depended on the work of the people who lived on manors. A **manor** was a large farm or estate. The peasants on the manors plowed its fields and raised animals and crops. Their long, hard work put the food on the tables of kings and nobles.

A king or queen usually had many manors in different parts of the kingdom. It was said in the Middle Ages that "the king should live on his own." This meant that the royal manors should supply food and other things needed by the royal household. The royal household included knights, officials, and servants, as well as the king and queen and their family. The household needed so many things that it generally moved about the kingdom from one royal manor to another during the year. One manor could not possibly feed so many people and animals throughout the year. William the Conqueror usually spent Christmas at his manor in Gloucester (gläs′ tər) and Easter at his manor in Winchester (win′ ches tər).

The fiefs granted by the king or queen to great vassals usually had a number of manors. The great vassals would grant some of these manors as fiefs to others in order to get the knights they had promised the king.

Life of the serfs Many of the peasants who worked on the manors were **serfs.** Serfs were not free to leave the manor without the consent of the lord of the manor. It was said that serfs were "attached to the land." Serfs belonged to manors just like the trees in a manor's forest or grass in its pastures.

Manors were divided into several large fields. Each field was then divided into narrow strips of land. Some strips were used to grow crops for the lord of the manor. Other strips were used to raise crops for the church. The rest of the strips were for the use of the serfs. The work on all the land was done by the serfs, but they got only that part of the crop that grew on the strips of land set aside for them.

We know the names of some serfs because they were written down in the records some manors kept. Some serfs' names were William Sparrow, Roger Mouse, William Littlefair, John Stoutlook, Agnes Redhead, and Margaret Merry. We have records of their names, but we know little about the lives of the serfs who had these names. No one wrote down their stories, and serfs themselves could not read or write. We only know in general what their lives were like.

Serfs usually lived in a village on the manor. It was safer in those warlike times to live in a village than to live alone in the countryside.

The serfs worked long, hard hours with simple tools. They had to do many kinds of things besides working in the fields. They cut and carried wood that would be burned in fireplaces in the lord's home. They gathered nuts and berries from the forest for the lord's dinner table. They took care of the lord's cows, goats, and horses.

When serfs killed one of their own animals, they had to give the lord some of the best parts of the animal. Serfs had to give eggs to the lord's kitchen. They had to grind the grain they raised at the lord's mill. They paid for using the mill by giving the lord part of the grain.

The life of a serf was hard, but it was the life led by many people in the Middle Ages. There were far more serfs than nobles. If you had lived then, it is very likely that you would have been a serf rather than a noble.

Living in cities Not everyone who lived in the Middle Ages lived in a manor house, in castles, or in villages. Nor was everyone a serf, a noble, or a knight. Many people also lived in cities.

Cities in the Middle Ages were often crowded and dirty. The picture on this page shows how narrow some of the streets were in some European cities in the Middle Ages. Life must have been very crowded on this street, which is only about 10 feet wide. The buildings are very close together, and very little sunlight enters the street. This street, built so long ago, still exists in Europe.

Many of the people who lived in cities were known by their trade or business. There was Richard le Barbier (ba'byā) and Thomas le Potier (pō' ty ā). In England they would have been known as Richard Barber and Thomas Potter. As you can tell by looking in a telephone book, many names today go back to the time when people were known by their trade. Some examples are Butcher, Baker, and Weaver.

People who had a trade in a city did not have to travel to work every morning because they usually lived where they worked. Tailors, for instance, might have their shops on the first floor of their house and live upstairs.

Goods were sold in the shops where the goods were made. People did not go to a clothing store to buy a hat. They went to a hatmaker's shop. Therefore, the person who sold hats could not blame someone else if the hats were not made well.

A person with a trade belonged to a trade **guild**. These guilds were organizations of people who had the same trade. Shoemakers, tailors, and bakers all had their own guilds.

The guilds controlled the making and selling of goods. This kind of control is called a **monopoly.** Guilds set rules for making and selling goods. All guild members had to follow the rules set down by the guilds. Tailors had to use a certain type of cloth. People who worked with gold had to measure the gold honestly. Guilds also ruled such things as what time guild members could open their shops. No one in a trade run by a guild could open shop before other guild members did.

A person who wanted to learn a trade was called an **apprentice** (ə pren' tis). Guilds limited the number of apprentices in a trade. Apprentices learned their trade from someone who already was a guild member. These people were called masters. By limiting the number of apprentices a master might have, the guilds made sure there would never be too many people in their line of business.

Apprentices agreed to work for a certain number of years for a master. In some trades, apprentices had to work 4 years. In others, apprentices had to work as long as 12 years.

The master agreed to feed and clothe the apprentice during these years. But more importantly, the master agreed to teach the apprentice a trade.

After putting in the time promised, apprentices might seek to become masters. The apprentices would have to present to the guild statements from their masters saying that the apprentices were good people who had learned the trade. Sometimes, apprentices would have to show a sample of their work. These samples were called masterpieces. A masterpiece would have to meet guild standards.

When apprentices showed that they could practice the trade according to guild standards, they became masters and swore that they would uphold the guild's rules. They would follow the guild's standards and help it keep its monopoly.

Not all apprentices became masters. There was a middle level called journeyman. These people practiced a certain trade and usually worked for a master. Journeymen were no longer apprentices, but had not yet become masters.

A strong-willed woman During the Middle Ages men and women were not usually treated equally. Men usually had more power than women. When a vassal died, his oldest son would usually get his father's fief if the son swore loyalty to his father's lord.

There was once a Duke of Aquitaine (ak' wə tān) who had no son. He did have a daughter named Eleanor. Acquitaine was one of the largest fiefs in France. The French king and the duke worried about what would happen to Aquitaine when the duke died. The king and the duke agreed that Eleanor should get the fief and that she should marry the king's son, Louis.

The old duke died in 1137. Eleanor married Louis that same year. The king died a month after the wedding. Eleanor's new husband became King Louis VII. The numeral after his name means that he was the seventh king of France named Louis. The young girl was now Queen of France as well as ruler of Aquitaine.

If the former king had thought that Louis could control both Eleanor and her fief, he was wrong. Eleanor was not easy to control. She certainly was not one to remain shut up in a royal palace. Louis discovered this when he decided to go on a crusade.

Crusades were religious wars between Christians and Moslems. *Crusade* means "war for the cross." During the First Crusade (1096–1099), knights from Europe captured the holy city of Jerusalem and set up a Christian kingdom there. They found it hard to hold the kingdom. From time to time the Moslems tried to recapture it.

The Second Crusade began in 1147. Louis VII decided that he would take an army to help the Christians. Eleanor decided that she would go on the crusade, too. When Louis and his army set out on the crusade, Eleanor and a group of her ladies set out on horseback with them. Eleanor and Louis quarreled while they were on the crusade. They were divorced after they returned to France.

Eleanor went back to Aquitaine. She was no longer Louis's wife, but she was still his vassal.

Eleanor did not remain unmarried long. She soon became the wife of Henry, the great-grandson of William the Conqueror. Henry later became King Henry II of England, and the former Queen of France now became Queen of England. But Eleanor still ruled Aquitaine. Under feudalism it was possible to be a king or queen in one country and a vassal in another.

It would be nice to say that Eleanor and Henry lived happily ever after, but that was not the case. They, too, quarreled and separated after many years of marriage. But Eleanor continued to play an important part in English affairs because two of her sons became kings of England. Her daughters married other European kings and dukes. By the time she died at the age of 80, people called her the "grandmother of Europe."

The Birth of Modern Europe

The religious life Religion played a big role in life during the Middle Ages. Christianity was very powerful and many people led religious lives. Bernard of Clairvaux (klâr vō') was one such person. Bernard's father was a knight but Bernard followed a very different way of life. He was a monk.

Monks devoted their whole lives to religion. They lived together in houses called **monasteries.** When a man became a monk, he gave away all that he owned. He made a vow, or promise, that he would never marry. He vowed that he would obey the **abbot,** or head of the monastery. Monks gave up their property and families to spend their lives in prayer and work.

Women who wished to follow this sort of life were called nuns. They lived in houses called **convents.** Nuns made the same kinds of promises that monks made. They gave up everything they owned and never married. They obeyed the abbess who was in charge of the convent. The life of a nun was also a life of prayer and work.

Bernard entered the French monastery Cîteaux (si tō') in 1112 when he was 21. He picked Cîteaux because the monks there strictly followed the rules of a religious life. Bernard scorned those who took vows as monks but did not keep them strictly.

Life at Cîteaux was a joy to a man like Bernard, although it may sound very hard to others. The monks got up at 3 o'clock every morning for their first prayer service of the day. The monks then worked between 6 o'clock and 10 o'clock. Bernard weeded the garden, swept the floor, and worked in the fields where the monks grew their own food. At 10 A.M. there was another prayer service. Then Bernard was free to read or study until noon.

After noon prayers, the monks ate a simple meal. Usually the monks ate only once a day. But during the summer when there was hard work to do in the fields, they did have a second meal. The monks ate simple foods. Only the sick got meat or eggs. Bernard did not mind the simple food. He said that fine food might be good for the body, but it did not help the soul, or spirit. "The soul is not fattened out of frying pans," Bernard wrote. What do you think he meant by this?

After dinner there was time for more study, or a monk might rest if necessary. At 3 P.M. there was another prayer service, and then more work until time for prayers and bed at sundown. The monks went to bed early in order to get up again at 3 A.M. to begin another day of prayer and labor.

Work in both monasteries and convents included helping other people. The monks and nuns fed the poor. They gave travelers shelter for the night. They taught children, and they cared for the ill. It was a way of life very different from that of kings, queens, and knights.

CHECKUP

1. What do we mean by the term *Middle Ages*? What do we mean by *modern*?
2. What was feudalism? How did it enable William the Conqueror to raise an army without taxes?
3. What did a serf do in return for using land on a manor?
4. In what ways did guilds control a trade or business?
5. What vows, or promises, did a monk or nun make when he or she entered a monastery or convent?

Time Periods. We divide the past into periods (intervals of time) so that we can think and speak about time more precisely. Even when we think of yesterday, we divide it into periods, such as morning, afternoon, evening, and night. This makes it possible for us to say that an event happened yesterday morning or afternoon, which is more precise than saying it happened yesterday.

Historians have customarily divided the past into periods. One such division is:

Ancient Times—to ca. A.D. 500
Middle Ages—ca. 500 to 1500
Early Modern Times—ca. 1500 to 1800
Modern Times—ca. 1800 to present

Some scholars do not like this scheme—or any such scheme—for dividing the past. They insist that period labels suggest sharp breaks in human experience, whereas history is a "seamless web." Europeans living in 500 did not think that times had changed much since 499. They certainly had no idea that they were living in the beginning of what we called the Middle Ages.

History is, indeed, a continuous story without beginning or end. Yet writers and teachers divide history into periods because they are so useful for organizing knowledge. *Periods* make it easier to keep in mind that Socrates and William the Conqueror, for example, lived in very different times. Pupils should learn about the great divisions of time just as they should know about the continents. But they should also understand that labels, such as *Middle Ages*, were invented by scholars and teachers. That is the reason for telling the story of Cellarius in the introduction to Lesson 1.

ANSWERS FOR CHECKUP QUESTIONS

1. The term *Middle Ages* refers to the period between ancient and modern times. The word *modern* comes from a Latin word meaning "just now." *Modern times* refers to the period from the end of the Middle Ages in A.D. 1453 to the present day.

2. Feudalism is that system which granted fiefs for the service of knights. It divided the power to govern among a number of nobles. Each lord ruled his vassals just as he was ruled in turn by his lord. This meant that each lord protected his own vassals and settled their disputes in court. Feudalism was the system of government in much of Western Europe during the Middle Ages. This system of granting fiefs made it possible for William the Conqueror to have a fighting force at hand when he needed it without having to pay money for it.

3. In return for using land on a manor, serfs had to work long, hard hours with simple tools. They worked in the fields, they cut and carried wood that would be burned in the fireplaces of the lord's home. They gathered nuts and berries from the forest for the lord's dinner table. They took care of the lord's cows, goats, and horses. Serfs also have to give the lord some of the best parts of their own animals when they killed them. They had to give eggs to the lord's kitchen. They had to grind the grain they raised at the lord's mill.

4. Guilds controlled a trade or business in the following ways: (1) They set rules for the making and selling of goods; (2) they decided the time at which guild members could open their shops; (3) they limited the number of apprentices in a trade.

5. When a man or woman entered a monastery or convent, vows, or promises, were made never to marry, and to obey the abbot or abbess who was in charge of the monastery or convent. Monks and nuns both gave up their property and their families to spend their lives in prayer and work.

The Birth of Modern Europe

1. Comparing Time Periods. Before pupils read "Periods of history" (p. 140), remind class that they read in Unit 2 about people who lived a very long time ago in Mesopotamia, Egypt, Greece, and Rome. We say that those peoples lived in ancient times. Ask your pupils: *Would people living in the days of Pericles have thought they lived in ancient times? Would the people who built the Parthenon have called it an ancient building?* Develop the concept that ancient is our name for those times more than 1,500 years ago. Explain how we divide time into periods. (See Supplementary Information.)

2. Using the Time Line. The time line on p. 142 covers events discussed in both Chapters 7 and 8. Have pupils examine the time line, then ask: *Which events listed on this time line took place in the Middle Ages? Which took place in modern times?* Answers will vary, but you can stimulate a discussion from the answers on the use of dates to mark off periods of time, reinforcing the concepts developed in the first teaching suggestion.

Refer to this time line when you begin Chapter 8. The time line is not meant to be all-inclusive. It reflects those events discussed in this unit, not all the major events that took place in the span of years shown.

3. Reading for Information. Have pupils read material on feudalism and manors (pp. 144–147) and write the meanings for each of the following terms: *knight, fief, vassal, castle, manor, serf, feudalism.*

4. Making Comparisons. After pupils have completed the second activity, ask: *In what way were vassals and serfs alike?* (Both performed services in exchange for the use of land.)

6. Using a Dictionary. On p. 147, the class read how some family names can be traced to the names of occupations. The two examples given on p. 147 were Potter and Barber. Have the members of your class use their telephone directories to find more names that may have had their origins in the names of trades or occupations. Have your pupils use their dictionaries to look up the names they found in their telephone directories. Not all the names will be in the dictionary, but many will be shown as common nouns describing certain types of occupations. To make this activity more challenging, list the following names on the chalkboard and have your pupils look them up in their dictionaries: Barker, Butler, Chamberlain, Chandler, Chapman, Cooper, Glover, Fletcher, Fuller, Harper, Hooper, Mason, Miller, Piper, Scrivener, Shearer, Skinner, Slater, Smith, Tanner, Turner, Webster, and Wright.

★7. Vocabulary Building. After pupils have read pp. 140–151, write the following words on the chalkboard: *knight, fief, vassal, feudalism, manor, serf, guild, monopoly, apprentice, monastery, convent, abbot.* Ask pupils to copy each word, write its meaning, and use it in a sentence.

REMEDIATION For pupils who have difficulty grasping new vocabulary words, you may wish to review the words and definitions orally. Show these students that some of these words can be combined in sentences that summarize the basic concepts of the lesson. For example: *Feudalism* was a form of government in which landowners called *vassals* supplied their lords with fighting men called *knights.*

ENRICHMENT For pupils who need a challenge, you may wish to work with the roots of some of the words in this lesson. The word *monopoly* has the same Greek root as the word *monarchy* (*mono,* meaning one or single; review Chapter 4, p. 78). Many other words have this same root. Have your pupils look up the following words: *monorail, monotone, monoplane, monosyllable, monotint, monophonic, monologue, monotheism, monolith,* and *monograph.*

8. Discussion. After your pupils have read about manors and guilds, raise the following questions: *If you had lived in the Middle Ages, which would you have preferred to be, a serf on a manor or an apprentice in a city? Why?*

9. Using Imagination. Ask pupils: *Suppose you could ask one question each of William the Conqueror, Eleanor of Aquitaine, and Bernard of Clairvaux, what would you ask?*

Ways of living during the Middle Ages led to changes that produced modern nations.

1. The Bayeux Tapestry (p. 143) gives an account of events by means of a series of scenes somewhat like a comic strip. Ask the class to make drawings that illustrate the following episodes in the life of William the Conqueror: (a) escape from the castle, (b) William defeats a rebellion, (c) William sails for England, (d) landing in England, (e) Battle of Hastings, (f) William crowned king, (g) vassals swearing loyalty to William.

Have all drawings made on the same size paper so that they can be pasted together to form a strip.

2. Have class build a model of a castle or of a manor. Use pictures on pp. 145–146 for guidance.

3. Using the picture on p. 146, have pupils draw a map of the manor.

4. Have pupils make reports on one of the following subjects: (a) the training of a knight, (b) the life of women in the Middle Ages, (c) castles, (d) guilds, (e) Leonardo da Vinci, (f) Elizabeth I of England.

Help Us "Remodel" this Handbook

In the spirit of good critical thinking, we want your assessment of this handbook and ideas for its improvement. Your ideas might be rewarded with a scholarship to the next International Conference on Critical Thinking !

Evaluation:

Here's what I found most useful about the handbook:

This is what I think is in need of change:

Here are my ideas for improving the handbook:

Send evaluation to: Center For Critical Thinking; Sonoma State University; Rohnert Park, CA 94928.

Resources for Teaching Critical Thinking

Critical Thinking Videotape Library

Videotapes are one of the most important developing resources for critical thinking in-service education. They can be used in a variety of ways: 1) as discussion starters, 2) as sources of information on the nature of critical thinking, 3) as models of critical thinking, and 4) as models for classroom instruction. All of the following videotapes have been developed as low-cost resources. No attempt has been made to achieve broadcast quality. An order form follows the tape descriptions.

Critical Thinking in Science

Professor Richard Paul, Chemistry Professor Douglas Martin, and Sonoma State University student Eamon Hickey discuss ways in which critical thinking may be applied in science education. The following issues are raised: "To what extent is there a problem with science education being an exercise in rote memorization and recall? Is there a conflict between preparing science students to become critical thinkers and preparing them for specialized scientific work? To what extent is science being taught monologically? Does monological instruction alienate students from the overall goal of becoming educated thinkers?" This tape is an excellent discussion-starter for in-service use. (50 minutes)

Critical Thinking in History

In this videotape, Professor Richard Paul is joined by History Professor Robert Brown and Sonoma State University student Eamon Hickey to discuss the relation of critical thinking to the interpretation, understanding, and construction of history. The following issues are discussed: "What is the place of value judgments in history? To what extent is history written from a point of view or frame of reference? Can students come to understand history from a critical vantage point? How would history be taught if this were the goal? To what extent should history be used to inculcate patriotism? What is it to learn how to think historically? Have teachers been adequately prepared to teach history from a critical vantage point? What can be done to facilitate historical thinking rather than memorization of 'facts'?" (50 minutes)

Dialogical Practice. I

One of the most important skills of critical thinking is the ability to enter into and reason within opposing viewpoints. In this videotape, Sonoma State University students Stacy Goldring and Jean Hume practice dialogical reasoning, using the Israeli-Arab conflict as the subject. (50 minutes)

Dialogical Practice. II

In this videotape, Sonoma State University students Hub Lampert and Dave Allender practice dialogical reasoning, using the issue of abortion as the subject. (29 minutes)

(Both of these dialogical practice tapes are excellent illustrations of what it is for students to integrate a host of critical thinking skills and dispositions into their spontaneous thinking.)

Critical Thinking: The State of the Field

In this welcoming address to the Third International Conference on Critical Thinking and Educational Reform, Professor Richard Paul addresses the following issues: "What fundamental changes are necessary to give students the incentive to develop critical thinking skills? How does the very nature of belief pose difficulty for critical thinking? How does traditional intra-disciplinary education provide an obstacle to independence of thought? How is critical thinking fundamental to all forms of reference and how can we use it to think across and beyond disciplinary boundaries? How is the field of critical thinking developing so as to cut across subject matter divisions? What are the social and institutional barriers to the development of critical thinking as a field and as an educational reality? (65 minutes)

Socratic Questioning In Large Group Discussion (4th Grade)

Professor Richard Paul leads a 4th Grade class discussion, using Socratic questions. Issues such as the following are discussed: "What is your mind? Does it *do* anything? Where does your personality come from? Is thinking like an American kid different from thinking like an Eskimo kid? Do you choose to be the kind of person you are going to be? Can you be a good person and people think you're bad? How do you find out what's inside a person?" (60 minutes)

Socratic Questioning in Large Group Discussion (6th Grade)

Professor Richard Paul leads a 6th Grade class discussion, using Socratic questions. Issues such as the following are discussed: "Who does the 'our' in the textbook title *Our World* refer to? Are people easy or hard to understand? Are all members of a group alike? Do some groups think they are better than other groups? Are there any groups of people that you think are bad? If you had to list the qualities of most Americans, what would they be? If you had to list the qualities of Germans, what would they be? Italians? Russians? Now imagine all of you are Russian boys and girls: how would you describe Americans?" The students' stereotypes and biases are probed. When contradictions begin to emerge, the students struggle to reconcile them or go beyond them. (70 minutes)

Socratic Questioning in Large Group Discussions (7th and 8th Grades)

Professor Richard Paul writes a definition of critical thinking on the board —"Critical thinking is seeing through the surface of things, events, and people to the deeper realities"— and then leads the class to probe the definition by Socratic questioning: "Can anyone give an example of a person you met that you thought was one way whom you later came to think was very different? Have you ever seen a toy advertised on TV that you later saw was very different from the way it appeared on TV? Do people ever try to make things look different from the way they are? Is it common or not common for people to try to trick other people? How can we check to see if people or things are really the way they appear to be? Do we always know what we really want? What we are really like? Are all people around the world basically alike or basically different? How could we check? How could we find out if we are right or wrong?" (65 minutes)

Learning How To Think About Thinking

Professor Paul leads a small group discussion whose purpose is to shed light upon the process of learning how to think about one's thinking. The issues used to illustrate the problem are "What is egocentrism? What is sociocentrism? What is the relation between these tendencies of mind and critical thinking?" All the students involved have had at least one course in critical thinking. (50 minutes)

The Attributes of a Critical Thinker

Professor Paul leads a class discussion about the attributes of a critical thinker. The class is introductory. Professor Paul uses Socratic Questioning and other techniques to facilitate student analysis, synthesis, and evaluation of the subject at hand. This tape can be used to illustrate both 1) initial student grappling with the idea of becoming a critical thinker, and 2) discussion techniques that facilitate student insight. (50 minutes)

Student Insights into Metacognition

Professor Paul leads a discussion focussed on a class's early experiences with metacognition. The students analyze the problems which they experienced in thinking dialogically on issues chosen by them. In the assignment discussed, the students constructed arguments on opposing sides of an issue. Some surprising insights and problems are articulated. (50 minutes)

Four-Part Workshop on Critical Thinking Instruction

Part One: Introduction to the Concept

In this introductory talk to an audience of public school teachers, Professor Richard Paul addresses the following issues: "What is the nature of critical thinking? How has it been defined and how useful are definitions? What are some of the characteristics and character traits of a person who thinks critically? What kinds of macro-abilities and micro-skills would critical thinking instruction foster? Professor Paul emphasizes fairmindedness, reciprocity, intelligent skepticism, and multilogical thinking. He explains the intimate relation between critical and creative thinking. (55 minutes)

Part Two: Dialogical Practice

In this videotape, Professor Paul explains the nature and importance of dialogical thinking and dialectical discussion. Dialectical exchange is modelled and the difference between it and 'debate' is explained. (21 minutes)

Part Three: Reciprocity

This tape focuses on a second macro-ability essential to strong-sense critical thinking, *reciprocity*, the process of entering into points of view that are in opposition to our own and reasoning within them. The teachers in the audience play the role of students and use the Lebanon hostage crisis as an occasion for learning how to reason sympathetically within an 'alien' and 'unpopular' point of view. A discussion is held on the importance of skills in reciprocity. The audience selects an unpopular point of view for two of Professor Paul's students to 'reconstruct' and model. It is emphasized that there are no 'dangerous' or 'forbidden' ideas, only ideas well or poorly justified. The importance of freedom of thought is discussed. (58 minutes)

Part Four: Socratic Questions

Socratic questioning is designed to foster the habit of reflective thinking rather than the habit of looking to a teacher, a book, or a formula for a ready-made answer. A Socratic questioner probes deeply for reasons, clarifications, explanations, and evidence, helping us to see what grounds or lack of grounds we have for our beliefs. In this tape, the process of Socratic questioning is discussed and modelled. Background information is essential to its understanding. "Pitfalls" are discussed. (45 minutes)

Proceedings of the Fourth International Conference on Critical Thinking and Educational Reform

Coaching Teachers Who Teach Critical Thinking — John Barell, David Perkins

If we wish students to engage in critical thinking in the 'strong sense,' how do we nurture this intended outcome through teacher-supervisor-coach interactions? Assuming experienced teachers are aware of the nature of critical thinking and find it difficult to engage students in this process, how do we help them become more flexible, empathic analysts and problem solvers? A model coaching process will be demonstrated and related to research on staff development, teacher growth, metacognition and achievement motivation. (90 minutes)

Problems with Teaching How to Use Arguments to Decide What to Believe — J. Anthony Blair

Professor Blair recommends using arguments to inquire critically and systematically into whether we should believe a claim when that claim is important, controversial and one we want to adopt or reject. But it is easier to describe this method than to teach it successfully in the classroom. And it is especially difficult to get students to exercise the reciprocity of 'strong sense' critical thinking when examining a claim which they strongly favor or oppose beforehand. Members of the audience describe their own experiences and difficulties, and discuss together ways of getting students to look at the arguments for and against a claim in a truly open-minded, critical way. (90 minutes)

Effective Design for Critical Thinking Inservice — Chuck Blondino, Ken Bumgarner

A team approach has been used effectively in the State of Washington to institute and improve the teaching of critical thinking in elementary, secondary, and higher education. Central to this team is effective networking that exists between and among the educational service districts (ESDS) and the curriculum and instruction leadership of the state office. Employee and curriculum organizations as well as parent, citizen and business associations have joined in this team effort f on the teaching of thinking skills at all levels. Organizing and networking techniques employed are discussed along with approaches taken to garner support of the educational groups, citizen organizations, and outside enterprises. (90 minutes)

Bridging the Gap Between Teachers' Verbal Allegiance to Critical Thinking and their Actual Behavior — M. Neil Browne, Stuart Keeley

Faculty and administrators regularly rank critical thinking as a preeminent educational objective. They claim it is the core of what teachers should be doing. Unfortunately, their talk is rarely supported by their teaching behavior. An initial obstacle to transforming verbal devotion to critical thinking into classroom performance is the mistaken belief that the discontinuity between prescription and practice is illusory. Professors Browne and Keeley summarize research done by themselves and others concerning the extent of critical thinking activity in secondary and post-secondary classrooms, and discuss strategies that offer promise for actually integrating critical thinking into the classroom. Especially important is the need to address the dominance of the 'coverage model' in shaping teaching practice. The presenters include suggestions for dialogic conversation with those who are motivated by the 'coverage model.' (90 minutes)

Teaching Critical Thinking Across the Curriculum — John Chaffee

Professor Chaffee explores an established interdisciplinary program which teaches and reinforces fundamental thinking skills and critical attitudes across the curriculum. The program is centered around *Critical Thought Skills,* a course specifically designed to improve the thinking, language, and symbolic abilities of entering college students. The course has been integrated into the curriculum through an NEH funded project of faculty training and curriculum re-design. In addition to reviewing the structure, theoretical perspective and evaluative results of the program, special attention is given to exploring practical approaches for developing thinking abilities. (90 minutes)

A Conception of Critical Thinking — Robert H. Ennis

On the assumption that a liberally educated person should be able to think critically in handling the civic and personal problems of daily life, as well as those of the standard subjects as taught in school, Robert Ennis offers a conception of critical thinking that bridges all of these concerns. Starting with the idea that thinking critically is reflectively and reasonably going about deciding what to believe or do, he suggests a number of dispositions and abilities that might well constitute a critical thinking set of goals for the school, K-U. (90 minutes)

How To Write Critical Thinking Test Questions — Robert H. Ennis

Dr. Ennis offers suggestions on how to frame questions that test critical thinking skills. (90 minutes)

Teaching Critical Thinking in the Strong Sense in Elementary, Secondary, and Higher Education —Richard W. Paul

In his opening address to the Fourth International Conference on Critical Thinking and Educational Reform, Richard Paul argues for the importance of teaching critical thinking at all levels in such a way as to foster the critical spirit and the application of that spirit to the foundations of our own beliefs and actions. He argues that it is inadequate to conceive of critical thinking simply as a body of discrete academic skills. The synthesis of these skills and their orchestration into a variety of forms of deep criticism is accentuated. He comments on the application of strong sense critical thinking to personal and social life as well as to academic subject domains. In this perspective, the strong sense critical thinker is conceived of as having special abilities and a special commitment to becoming an integrated and moral person. (60 minutes)

Workshop on the Art of Teaching Critical Thinking in the Strong Sense — Richard W. Paul

In this workshop, emphasis is placed on strategies which enhance strong sense critical thinking abilities and skills. First, the distinction between weak and strong sense critical thinking is explained. Then, exercises are used to explain and demonstrate how one can use the macro-abilities of critical thinking (Socratic questioning, reciprocity, and dialogical reasoning) to orchestrate micro-skills in achieving 'strong sense' objectives. (90 minutes)

Knowledge as Design in the Classroom — David Perkins

This workshop introduces participants to the basic strategies of "knowledge as design," a systematic approach to integrating the teaching of critical and creative thinking into subject-matter instruction. The key notion is that any piece of knowledge or product of mind — Newton's laws, the Bill of Rights, a sonnet by Shakespeare — can be viewed as a design, a structure adapted to a purpose. By examining the purpose of Newton's laws, the Bill of Rights, or a sonnet, analyzing structure, and assessing how and how well the structure serves the purpose, students can achieve genuine insight into such products and into the way knowledge works in general. By redesigning existing designs (for example, make up your own Bill of Rights) and devising new ones, students can learn the art of inventive thinking. (90 minutes)

The Possibility of Invention — David Perkins

"How can something come out of nothing?" is a fundamental question not only for physicists pondering the origins of the universe but for psychologists, philosophers, and educators pondering the nature of creative thinking. How can a person invent something genuinely new, or is it so that nothing we invent is really new? This presentation explores the basic 'logic' of invention, arguing that there are fundamental patterns of information processing that can be found in human thought, and some of them even in computers and biological evolution. (90 minutes)

The Role of Thinking in Reading Comprehension — Linda M. Phillips

Dr. Phillips discusses the intimate relation between critical thinking and reading comprehension, using case studies to illustrate how the same passage of text is interpreted differently by a critical reader and an uncritical reader. Thinking should not be separated from reading, she concludes, and reading well is thinking well. (90 minutes)

Critical Thinking at the Community College — John Prihoda, Richard Paul, Vincent Ryan Ruggiero, and David Perkins

This is the 'opening' session of a special program on critical thinking for community college personnel. John Prihoda defines some of the issues from a community college perspective and describes the program plan. Richard Paul discusses some of the history of the critical thinking movement and indicates some of the approaches being taken at the community college level. Vincent Ruggiero describes some of the methods and materials being used in critical thinking instruction. Dr. Prihoda comments on the administrative implications of the critical thinking movement. (90 minutes)

Teaching Thinking Strategies Across the Curriculum: The Higher Order Thinking (H. O. T.) Project: Elementary Level — Edys Quellmalz

Dr. Quellmalz describes the Higher Order Thinking (H. O. T.) Projects currently underway in San Mateo County, Sacramento County and the San Juan Unified School District. The projects involve teachers in a collaborative effort to develop and monitor students' higher order thinking skills in school subjects. In the instructional component, teachers examine textbooks and other classroom resources in order to design activities that will involve students in sustained reasoning about significant concepts and problems typically encountered in academic and practical situations. Following an overview of the projects, teachers describe lessons developed and discuss samples of student work. (90 minutes)

Using Arguments to Decide What to Believe — J. Anthony Blair

Faced with contentious claims, there is a tendency to respond with immediate reaction, and also to consider only a few of the pros and cons. Moreover, the reflection that goes into such an examination when it does occur is seldom thorough or tenacious. What seems needed are some easily-understood and readily-applied methods that will extend and deepen the critical examination of contentious claims. The method suggested by Dr. Blair is a systematic collection and examination of (1) the pros and cons of a contentious opinion or claim, (2) the merits of those pros and cons, (3) the overall strengths and weaknesses of the best case for the claim. Dr. Blair describes the theory of the method, then participants are given a chance to apply it and see how it works in practice. (90 minutes)

Critical and Creative Problem-Solving — John Chaffee

Solving problems effectively involves an integrated set of critical and creative thinking abilities. This workshop introduces a versatile problem-solving approach which is useful for analyzing complex problems in a creative and organized fashion. Participants work through a sequence of problems, individually and in small groups, and are given the opportunity to discuss and critically reflect on the learning process. In addition, participants explore ways of incorporating problem-solving approaches into the courses that they teach. (90 minutes)

Argument Diagramming — James Freeman

The purpose of diagramming is to display perspicuously what supports what, or what is claimed to support what, in an argument. Professor Freeman presents the four basic argument structures — convergent, serial, divergent, and linked — and points out how these structures may be motivated by very straight-forward questions which could easily arise in concrete situations where two people are deliberating some issue. He then applies his own diagramming procedure to display the structure of various sample arguments. (90 minutes)

Practical Reasoning — Carol LaBar, Ian Wright

Critical thinking includes reasoning about what ought to be done, as well as what to believe. This sort of reasoning, sometimes called practical reasoning, involves two logically different kinds of reasons: 1) motivating reasons in the form of value standards which the agent accepts, and 2) beliefs about the degree to which the actions under consideration will fulfill the value standard. These two different kinds of reasons lead to a conclusion about what ought to be done; that is a practical judgment. This session focuses on the practical syllogism and the use of principle 'tests' as a way of assessing the value standard. (90 minutes)

The Nature of Critical Thinking Through Socratic Interrogation — Richard Paul

Professor Paul interrogates the audience Socratically in order to elicit collective insights into the nature of critical thinking. This parallels the first couple of sessions of his introductory course in critical thinking in which Professor Paul uses a similar strategy for getting his students to begin to come to terms with some of the basic issues. (90 minutes)

Epistemological Underpinnings of Critical Thinking — Harvey Siegel

To be a critical thinker is to base one's beliefs, opinions and actions on relevant reasons. The notions of 'reason' and 'rationality' are, however, philosophically problematic. Just what is a reason? How do we know that some consideration constitutes a reason for doing or believing something? How do we evaluate the strength or merit of reasons? What is it for a belief or action to be *justified*? What is the relationship between justification and *truth*? Dr. Siegel examines these epistemological questions, and explores their relevance for critical thinking. (90 minutes)

Proceedings of the Fifth International Conference on Critical Thinking and Educational Reform

What Human Beings Do When They Behave Intelligently and How They Can Become More So-
Art Costa

Studies of efficient thinkers by Feuerstein, Sternberg, Glatthorn and Baron, and others have yielded some rather consistent characteristics of effective human performance. Studies of home, school, and classroom conditions, and the significance of mediative behaviors of parents and teachers are increasing our understanding of how to enhance the acquisition and performance of intelligent behavior. In this session, twelve qualities of human intelligent behavior are cited; indicators of their presence and increased performance in the classroom are identified; and school, home, and classroom conditions that promote their development are presented. (90 minutes)

Critical Thinking Staff Development: Developing Faculty Critical Thinking and Critical Teaching Skills — Richard Paul

The problem of long term staff development is a central problem in any attempt to bring critical thinking into the curriculum. Whatever else, we want critical thinking to be infused into all subject matter instruction. But we cannot do this unless, and to the extent that, faculty become comfortable articulating and utilizing critical thinking skills and dispositions. The standard mindset to instruction is an impediment. In this session, Professor Paul presents a general model for staff development and discusses ways of adapting it to different educational levels: elementary, secondary, and university. (90 minutes)

Lesson Plan Remodelling: A Strategy for Critical Thinking Staff Development — Richard Paul

The basic idea behind lesson plan remodelling as a strategy for staff development in critical thinking is simple. To remodel lesson plans is to develop a critique of one or more lessons and formulate one or more new lessons based on that critical process. A staff development leader with a reasonable number of exemplary remodels with accompanying explanatory principles can develop a series of staff development sessions that enable teachers to begin to develop new teaching skills as a result of their experience in lesson remodelling. In this session, Dr. Paul illustrates this mode of staff development using the Center's *Critical Thinking Handbook: K-3, A Guide For Remodelling Lesson Plans in Language Arts, Social Studies, and Science.* (40 minutes)

Teaching Critical Thinking: Skill, Commitment and the Critical Spirit, Kindergarten through Graduate School — Richard W. Paul

In his opening address to the 5th International Conference on Critical Thinking and Educational Reform, Professor Paul explains the significant opportunities that critical thinking instruction provides as well as the obstacles it faces. He begins by tracing his own intellectual development in terms of critical thinking. He then illustrates the application of critical thinking to productive, synthetic, and meaningful learning in general. He explains how and why critical thinking represents not only a set of skills but also a set of commitments and mental traits. He discusses the significance, for example, of intellectual courage, intellectual humility, and fairmindedness, which he argues we as educators often don't foster.

Professor Paul uses a variety of everyday examples to make clear how critical thinking cuts across the curriculum and is significant at every grade level. He underscores the growing consensus in the field as to the meaning and nature of critical thinking as well as the wide variety of dimensions of it that need further exploration. (50 minutes)

Culture and Critical Thinking: The Danger of Group- or Culture-bound Thought — Richard W. Paul, Carol Tavris

One danger for thought is social or cultural blindness. In this case our critical thinking results in misjudgments of others. Another, but opposite, danger is the refusal to make any judgments about any culture but our own. In this session, Richard Paul and Carol Tavris discuss the nature and significance for education of these deepseated problems. The issue is, in other words, how can we so structure instruction so that students learn how to recognize and overcome their group-bound and culture-bound thinking? (90 minutes)

What Makes Science Concepts Hard to Understand? — David Perkins

The learning of science with genuine understanding has emerged as a pressing educational problem not only in pre-university education but even at the university level. Science "misconceptions" prove prevalent in students even after a year or two of physics or chemistry. In this session, Professor Perkins explores through examples some of the factors that lead to deeply rooted misunderstandings of scientific concepts and examines some of the educational strategies that might serve to help students toward real comprehension. (90 minutes)

What the Mind is Made Of — David Perkins

The mind can be conceived and modeled in innumerable ways. Two contemporary views of the nature of mind strike a particularly provocative contrast. Alan Newell, in his SOAR model, proposes that the mind is a "production system," a computer-like mechanism that operates by checking for what the situation of the moment is and then "firing" an action that responds more or less appropriately to the situation. In seemingly stark contrast, Marvin Minsky, in his "society of mind" model, proposes that the mind is composed of a loose society of semi-autonomous subminds—"agencies" that have very specialized jobs. In this session, Professor Perkins ponders whether the question, "What is the mind made of?" even makes sense, and what kind of sense it might make. (90 minutes)

How to Use Media Critically — Joel Rudinow

In this session, Professor Rudinow presents a unique experiment in the Socratic use of television technology as a tool of media criticism and as a tool of education in media criticism. A panel involving advanced students of Critical Thinking critically analyzes a segment of nationally televised public affairs programming using the "stop action" and "instant replay" capabilities of television technology, before a live studio audience. (45 minutes)

Thinking Critically about Emotion — and the Role of Emotion in Critical Thinking — Carol Tavris

Historically, philosophers and psychologists have divided emotion and cognition into two camps: the "bestial" and the "human," the irrational and the rational, the bad and the good. One implication of this perspective has been that emotion is death to critical thinking; that human beings would be able to think logically and solve their problems if only they didn't have those nasty old mammalian emotions in the way. In her presentation, Dr. Tavris discusses how new research is breaking down old dichotomies: for example, the role of cognition in generating emotion; the role of emotional arousal in influencing thought; and ways in which cognition can be "irrational" and emotion "rational." (90 minutes)

Panels

Can One Think Critically Without Thinking Creatively? Can One Think Creatively Without Thinking Critically? — Sharon Bailin, Lou Miller, Richard Paul, David Perkins

This panel considers the degree of interrelationship and interdependence of what are sometimes designated as two different modes of thinking: critical and creative thinking. (90 minutes)

Critical Thinking and Third World Communities — Abelardo Brenes, Greg Sarris, Angel Villarini

This panel explores the special challenges and obstacles to fostering critical thinking in "third world" communities. (90 minutes)

Critical Thinking and Curricular Reform in Secondary and Higher Education — Rexford Brown, George Hanford, Glen Irvin, Jere Jones, Fred Korn, Donald Lazere

The focus of this panel is on institutional obstacles to a unified curriculum for critical thinking and the exploration of possible means of overcoming them. (90 minutes)

What Are State Departments of Education Doing About Critical Thinking? — Ken Bumgarner, Fran Claggett, William Geffrey, Mark Weinstein

This panel explores the general approaches being used to facilitate the infusion of critical thinking into the curriculum in three vanguard states: Washington, California and New York. (90 minutes)

Critical Thinking and Informal Logic: How Do They Relate? — Edward Damer, John Hoaglund, Lenore Langsdorf

This panel explores the interrelations of critical thinking and informal logic and the significance of those interrelations for pedagogical purposes. (90 minutes)

Critical Thinking and the Media — William Dorman, Carl Jensen, Lenore Langsdorf

In this panel, the many challenges and opportunities which are posed by the powerful influence for good or ill of the mass media today are considered. The role that critical thinking needs to play for the media consumer and the implications of this for education are canvased. (90 minutes)

State Wide Critical Thinking Testing in California: What Has It and What Has It Not Accomplished? — Robert Ennis, Jan Talbot, Perry Weddle

The nature and impact of mandated statewide critical thinking testing in California is considered by the panel. (90 minutes)

Critical Thinking in Community Colleges: The Title Five Mandate in California — John Feare, Nancy Glock, Donald Klein

The panel focuses on critical thinking in community college curriculum and teaching, with special consideration of the "Title Five" mandate which requires that all community college courses be so structured that the "ability to think critically" is essential to participation in the course. (90 minutes)

Critical Thinking in European Education — Alec Fisher, Rob Grootendorst, Richard Paul, Will Robinson, Frans van Eemeren, Marek Zelazkiewicz

This panel focuses on the nature and role of critical thinking in European Education today, with special attention to Great Britain, the Netherlands, and Poland. (90 minutes)

Psychology and Critical Thinking: The Affective Dimension — Wes Hiler, David Perkins, Harvey Siegel, Carol Tavris

The affective dimension of critical and uncritical thinking are the focus of this panel, with special consideration of the contribution of clinical and social psychology. Implications for teaching and everyday living are explored. (90 minutes)

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*Israel Scheffler, *Reason and Teaching* 1973, Bobbs-Merril Co, Inc.) page 137

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The Director of the Center

Richard W. Paul, the director of the Center for Critical Thinking, is widely recognized as a major leader in the national and international critical thinking movements. His views on critical thinking have been canvassed in *The New York Times, Education Week, The Chronicle of Higher Education, American Teacher, Educational Leadership, Newsweek*, and *U.S. News and World Report.* Besides publishing seminal articles in the field, he has organized two national and five international conferences on critical thinking. He has given invited lectures at many universities and colleges including Harvard, University of Chicago, and University of Illinois, as well as workshops on critical thinking in every region of the country.

Professor Paul has been the recipient of numerous honors and awards, including most recently being named "distinguished philosopher" (by the Council for Philosophical Studies, 1987), O.C. Tanner lecturer in Humanities (by Utah State University 1986), Lansdowne Visiting Scholar (by the University of Victoria, 1987), and the Alfred Korzybski Memorial Lecturer (by the Institute for General Semantics, 1987). He has been selected for inclusion in *Who's Who in American Education.*

Professor Paul has been active in helping to develop the concept of critical thinking being used to design tests in critical thinking (K-12) by the State Department of Education in California and is working with Edward M. Glaser in revising the *Watson-Glaser Critical Thinking Appraisal*. As part of his work with Dr. Glaser, Richard Paul is developing a test for fairmindedness.

Professor Paul received his Ph.D. in Philosophy from the University of California at Santa Barbara. He spent his last year at Cambridge University in England working with John Wisdom. His dissertation, *Logic as Theory of Validation* is a critique of formal logic as a tool for the analysis of everyday reasoning. It set the stage for his involvement in the critical thinking movement, in which he is playing a major role.

Richard Paul is Professor of Philosophy at Sonoma State University, Rohnert Park, California. His many publications on critical thinking include:

1. *Critical Thinking Handbook: K-3, A Guide for Remodelling Lesson Plans in Language Arts, Social Studies, and Science*, Co-authors: A.J.A. Binker, Marla Charbonneau. Center For Critical Thinking and Moral Critique, Rohnert Park, CA, 1987.
2. *Critical Thinking: Handbook4th-6th Grades, A Guide for Remodelling Lesson Plans In Language Arts, Social Studies, and Science*, Co-authors: A.J.A. Binker, Karen Jensen, Heidi Kreklau. Center For Critical Thinking and Moral Critique, Rohnert Park, CA, 1987.
3. "Teaching Critical Thinking in the Strong Sense: A Focus on Self-Deception, World Views, and a Dialectical Mode Of Analysis", *Informal Logic*, May, 1982, J. Anthony Blair and Ralph Johnson, editors.
4. "The Critical Thinking Movements: A Historical Perspective", *National Forum*, Winter 1985, Stephen White, editor.
5. "Critical Thinking and the Critical Person", forthcoming in *Thinking: Progress in Research and Teaching*, Lawrence Erlbaum Associates, Inc. Hillsdale, NJ, Perkins, Bishop, and Lochhead, editors.
6. "Dialogical Thinking: Critical Thought Essential to the Acquisition of Rational Knowledge and Passions", *Teaching Thinking Skills: Theory and Practice*, W. H. Freeman Company, Publishers, NY, NY, Joan Baron and Robert Steinberg, editors.
7. "Critical Thinking: Fundamental to Education for a Free Society", *Educational Leadership*, September 1984, Ronald Brandt, editor.

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